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

N299964755

| FACILITY: 3M DETROIT ABRA  | SIVES                         | SRN / ID: N2999           |
|----------------------------|-------------------------------|---------------------------|
| LOCATION: 11900 E EIGHT MI | LE RD, DETROIT                | DISTRICT: Detroit         |
| CITY: DETROIT              |                               | COUNTY: WAYNE             |
| CONTACT: Steve Florek, EHS | Engineer                      | ACTIVITY DATE: 09/22/2022 |
| STAFF: Jorge Acevedo       | COMPLIANCE STATUS: Compliance | SOURCE CLASS: SM OPT OUT  |
| SUBJECT:                   |                               |                           |
| RESOLVED COMPLAINTS:       |                               |                           |

**COMPANY NAME** 

: 3M Detroit Abrasives

**FACILITY ADDRESS** 

:11900 East Eight Mile, Detroit

STATE REGISTRAT. NUMBER : N2999

SIC CODE

**EPA SOURCE CLASS** 

: B

**EPA POLLUTANT CLASS** 

LEVEL OF INSPECTION

: scheduled inspection

DATE OF INSPECTION

: 9/22/22

TIME OF INSPECTION

: 0 PM

**DATE OF REPORT** 

**REASON FOR INSPECTION** 

: Scheduled

**INSPECTED BY** 

: Jorge Acevedo

PERSONNEL PRESENT

: Steve Florek

**FACILITY PHONE NUMBER** 

**FACILITY FAX NUMBER** 

#### **FACILITY BACKGROUND**

3M has manufactured sandpaper at this site since 1981, though the plant has been in operation since 1950. The facility covers approximately 4.5 acres and employs about 100 workers. The 100,000 square foot process building houses the production line, test labs and office space.

#### **INSPECTION NARRATIVE:**

On September 22, 2022, I conducted a scheduled inspection of 3M. The purpose of the inspection was to observe a portion of the stack test and determine the facility's current compliance status with the federal Clean Air Act of 1990, as amended; Part 55 of Michigan Public Act 451 of 1994, as amended; the administrative rules and the conditions of PTI No. 318 -01G. I arrived at the facility at 9 AM. I did not observe any opacity. I met with Steve Florek, EHS Engineer. We discussed the changes since the last inspection.(June 2017). The company is now operating four days a week. The amount of production has reduced as production has moved to other 3M facilities. The facility performed major maintenance on the thermal oxidizer. This was a result of a consent decree that was enforced by the USEPA. The result of the consent decree was the issuance of PTI 318-01G which will require periodic testing of the thermal oxidizer. Lisa Jendre, Plant Manager, also joined in the discussion. I explained the inspection process and what I would be reviewing to her. We did talk about coatings and the history of the VOC content in the coatings. Steve also mentioned that more than half of the coatings are water based coatings.

After speaking with Steve and Lisa, Steve accompanied me on a walk through the facility. He explained that the facility was prepping for the weekend so activity was ramping down. I observed the jumbo rolls which then are fed into coating and then minerals before going into the oven. Steve showed me the mixing room which has a 250-300 gallon tanks that is used to feed the coating line. He pointed out the ducting from the oven which goes to the thermal oxidizer. I observed the oven and because the line was not running, observed the insides. Steve explained that the amount of time it takes the oven to cure depends on the coating.

Next, I observed the thermal oxidizer and requested a readout of the temperature. Steve explained that during the three days that the facility is not in production, staff bottle up the oxidizer so that some heat can be retained so energy use is minimized when ramping up.

After viewing the thermal oxidizer, we went back to the conference room. Steve showed me some inspection records for the oxidizers and also showed me the emission calculations and records necessary to show that the facility is in compliance. After looking at records, I left the facility at 11:30AM.

#### **COMPLAINT/COMPLIANCE HISTORY:**

There has not been any citizen complaints registered against 3M. There have not been violations issued against 3M in the last several years.

**OUTSTANDING CONSENT ORDERS:** 

None

**OUTSTANDING LOVs** 

None

#### **OPERATING SCHEDULE/PRODUCTION RATE:**

This facility operates 12 hours a day, 4 days a week.

#### PROCESS DESCRIPTION

The process begins with the adhesive mixing operation. The various components are placed in the mixers and sent down to the "maker" (adhesive application process). In 2009, the mix room was upgraded with enclosed mixers which are now vented to the thermal oxidizer, thus emissions from this process have been reduced substantially over the old system, which was vented to the ambient air.

At the "maker," the paper web (approximately 6 feet wide) is unrolled and the adhesive is roller-applied. After this, the web receives a layer of abrasive solids and proceeds to the "backrack" oven, where an initial cure occurs. Next, the "size coat" is applied, followed by another brief cure. Finally, the web is rewound and sent to the roll cure oven for a 24 hour cure. This oven operates on a batch basis. All of the ovens (as well as the new mixers) are ducted to the thermal oxidizer, which has a minimum VOC control of 91.2%. The roll cure oven is permitted to operate uncontrolled for a maximum of 876 hours per year.

After curing, the rolls may be slitted on site, or shipped as-is to the final packaging facilities.

Particulate emissions are controlled by a 1000 cfm baghouse dust collector. This collector was initially installed in 1986.

The facility also houses several test labs, which verify the abrasiveness and durability of the paper. These areas are each equipped with their own cartridge-type dust collectors.

#### APPLICABLE RULES/PERMIT CONDITIONS:

Special Conditions for PTI 318-01G are evaluated below:

### The following conditions apply to: EU-ABRASIVEPAPER

<u>DESCRIPTION</u>: Abrasives material process consisting of web unwind, adhesive make coating application controlled by a regenerative thermal oxidizer (RTO), abrasive solids application controlled by a baghouse, a main drying oven (natural gas-fired) controlled by the RTO, final size coating application, and a web wind. The main drying oven has a number of bypass stacks. Two side wall vents are located in the make coating and size coating application areas.

Flexible Group ID: FGFACILITY

**POLLUTION CONTROL EQUIPMENT: RTO** 

### I. EMISSION LIMITS

| Pollutant                                   | Limit       | Time Period / Operating Scenario   | Equipment            | Compliance<br>Determination   |
|---|-------------|--|----------------------|---|
| 1. VOCs                                     | 24.5<br>tpy | 12-month rolling time period as determined at the end of each calendar month | EU-<br>ABRASIVEPAPER | Compliance- Records were received and the highest 12 month rolling total was 10.9 TPY.          |
| 2.<br>Formaldehyde<br>(CAS No. 50-<br>00-0) |             | 12-month rolling time period as determined at the end of each calendar month | ABRASIVEPAPER        | Compliance- Records<br>were received and the<br>highest 12 month rolling<br>total was 0.089 TPY |
| 3.<br>Formaldehyde                          | 5.5<br>pph  | Hourly   |                      | Compliance- Testing was conducted on June   |

| Pollutant                                       | Limit         | Time Period / Operating Scenario | Equipment            | Compliance<br>Determination  |
|---|---------------|----------------------------------|----------------------|--|
| (CAS No. 50-<br>00-0)                           |               |                                  |                      | 14, 2017 and emissions of formaldehyde were 1.02 lbs/hr.   |
| 4. Furfuryl alcohol<br>(CAS No. 98-00-0)        | 3.1<br>lb/day | Calendar day                     | EU-<br>ABRASIVEPAPER | Compliance- Record was received stating no products with furfuryl alcohol are being used at this time. |
| 5. Furfuryl<br>alcohol<br>(CAS No. 98-<br>00-0) | 0.8<br>pph    | Hourly                           | EU-<br>ABRASIVEPAPER | Compliance- Record was received stating no products with furfuryl alcohol are being used at this time. |

# II. MATERIAL LIMITS

NA

# III. PROCESS/OPERATIONAL RESTRICTIONS

1. 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.

Compliance- No open containers were observed during the inspection.

2. Within 180 days after permit issuance, the permittee shall not operate EU-ABRASIVEPAPER unless a malfunction abatement plan (MAP) as described in Rule 911(2) is implemented and maintained. The MAP shall, at a minimum, specify the following.....

Compliance- MAP is maintained and was submitted in appropriate timeframe.

#### IV. <u>DESIGN/EQUIPMENT PARAMETERS</u>

1. The permittee shall equip and maintain EU-ABRASIVEPAPER with roll coating applicators or comparable technology with equivalent transfer efficiency. (R 336.1702(a))

Compliance- Roll coating applicators are used.

2. The permittee shall not operate EU-ABRASIVEPAPER unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC control (combined capture and destruction) efficiency of 91.2 percent (by weight), a minimum temperature of 1400°F, a minimum retention time of 0.5 seconds, and in accordance with an approved MAP as required in SC III.2.

Undetermined- Facility failed previous stack test and finalized a consent decree with US EPA. PTI 318-01G was issued in response to the consent decree. The facility will test in 2024 and every five years after that.

The permittee shall operate the RTO when applying coatings with VOC contents greater than 0.5 lb/gallon (minus water) before control. (R 336.1224, R 336.1225, R 336.1702, R 336.1910)

Compliance- RTO temps were observed higher than 1400 °F during inspection.

#### V. TESTING/SAMPLING

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

1. 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 or 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 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

Compliance- Permittee is using manufacturer's data.

2. Starting September 18, 2024, and every five calendar years thereafter, the permittee shall complete performance testing to measure the destruction efficiency of the RTO. During this performance testing, the permittee must be operating under conditions that are most challenging to the RTO and are also representative of operating conditions (excluding startups, shutdowns, and malfunctions). The permittee will propose these operating conditions in the test protocol submitted to the AQD with consideration given to operating with raw materials containing formaldehyde, as applicable. The permittee shall use the result of the most recent capture efficiency test and destruction efficiency test to demonstrate compliance with the overall minimum efficiency required by the permit for the relevant emission units. The overall minimum efficiency for EU-ABRASIVEPAPER is specified in SC IV.2. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 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, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1224, R 336.1225, R 336.1702, R 336.1910, R 336.2001, R 336.2003, R 336.2004, Administrative Order EPA-5-21-113(a)-MI-01)

Undetermined- Facility will test in 2024.

#### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1224, R 336.1225, R 336.1702)

Compliance- Permittee is up to date in demonstrating calculations.

2. The permittee shall monitor, in a satisfactory manner, the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.

Compliance- Permittee is continuously monitoring temperature in the RTO.

3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating and 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 336.1224, R 336.1225, R 336.1702)

Compliance- Permittee maintains current composition of each coating and solvent through database.

- 4. The permittee shall keep the following information on a calendar month basis for the EU-ABRASIVEPAPER:
- a. Date and time of each startup and shutdown of the RTO.
- b. Date and time of start and stop for each production run. (A production run is defined as one specific product family which may have many product grades within the production run.)
- c. Gallons (with water) of each coating and solvent used separately, during periods of RTO operation and RTO bypass on a production run basis.
- d. VOC content in lbs/gallon (minus water and with water) of each coating and solvent, as applied, on a production run basis.
- e. VOC mass emission calculations determining the monthly emission rate in tons per calendar month as determined at the end of each calendar month.
- f. 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.

The records shall be kept in a format acceptable to the AQD District Supervisor and emission calculations shall be performed as specified in Appendix A. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1224, R 336.1225, R 336.1702)

Compliance- Spreadsheet with emission calculations was submitted upon request.

- 5. The permittee shall keep the following information on a calendar month basis for the EU-ABRASIVEPAPER:
- a. Gallons (with water) of each formaldehyde (CAS No. 50-00-0) containing material used.
- b. Where applicable, the gallons (with water) of each formaldehyde (CAS No. 50-00-0) containing material reclaimed.
- c. The formaldehyde (CAS No. 50-00-0) content (in weight percent), as applied.
- d. Formaldehyde (CAS No. 50-00-0) mass emission calculations determining the monthly emission rate in tons per calendar month.

e. Formaldehyde (CAS No. 50-00-0) 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.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor and emission calculations shall be performed as specified in Appendix B. The permittee shall keep all records on file and make them available to the Department upon request.<sup>1</sup> (R 336.1225)

Compliance- Spreadsheet with emission calculations was submitted upon request.

- 6. The permittee shall keep the following information on a calendar day basis for the EU-ABRASIVEPAPER:
- a. Gallons (with water) of each furfuryl alcohol (CAS No. 98-00-0) containing material used.
- b. Where applicable, the gallons (with water) of each furfuryl alcohol (CAS No. 98-00-0) containing material reclaimed.
- c. The furfuryl alcohol (CAS No. 98-00-0) content (in weight percent), as applied.
- d. Furfuryl alcohol (CAS No. 98-00-0) mass emission calculations determining the daily emission rate in pounds per calendar day using the following evaporation credits.

Evaporation Rate=11.4% for furfuryl alcohol application rates of <32 lbs/hr

Evaporation Rate=8.3% for furfuryl alcohol application rates of 32 to 50 lbs/hr

Evaporation Rate=3.5% for furfuryl alcohol application rates of 200 to 300 lbs/hr

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.<sup>1</sup> (R 336.1225)

Compliance- Spreadsheet with emission calculations was submitted upon request. Furfuryl alcohol is not being used at this time.

7. The permittee shall keep, in a satisfactory manner, continuous records of the temperature in the RTO. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)

Compliance- Monitoring of temperature was observed during the inspection.

# VII. REPORTING

NA

# 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 (inches) | Minimum Height Above Ground (feet) | Compliance determination   |
|--|-----------------------------------|------------------------------------|--|
| SVOVEN01A – Main<br>oven zone 1 bypass<br>stack    | 14                                | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 2. SVOVEN01B –<br>Main oven zone 1<br>bypass stack | 14                                | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 3. SVOVEN01C –<br>Main oven zone 1<br>bypass stack | 30                                | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 4. SVOVEN02 – Main<br>oven zone 2 bypass<br>stack  | 14                                | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
|  | 32                                | 45                                 | Compliance assumed but no measurements were taken. Stacks  |

| Stack & Vent ID   | Maximum<br>Exhaust<br>Diameter<br>(inches) | Minimum Height Above Ground (feet) | Compliance determination   |
|---|--|------------------------------------|--|
| 5. SVOVEN03 – Main<br>oven zone 3 bypass<br>stack               |  |                                    | appeared to be correct height and diameter   |
| 6. SVOVEN03AUX –<br>Main oven zone 3<br>bypass stack            | 36   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 7. SVOVEN04 – Main<br>oven zone 4 bypass<br>stack               | 14   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 8. SVOVEN05 – Main<br>oven zone 5 bypass<br>stack               | 14   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 9. SVOVEN06 – Main<br>oven zone 6 bypass<br>stack               | 14   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 10. 0VOVEN06AUX –<br>Main oven zone 6<br>auxiliary bypass stack | 18   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 11 VSIZE10 - Size coating application area stack                | 20   | 40                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 12. SVRTO11 –<br>Thermal oxidizer stack                         | 68   | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |

14. The permittee shall only use the bypass stacks on the drying oven portion of EU-ADHESIVEPAPER when applying coatings with VOC contents less than 0.5 lb/gallon (minus water) before control. (R 336.1224, R 336.1225, R 336.1702, R 336.1910)

Compliance- Records are kept regarding emissions out of the bypass stack.

The following conditions apply to: EU-ROLLCURE

<u>DESCRIPTION</u>: Roll cure oven (natural gas-fired) controlled by the RTO with optional bypass.

Flexible Group ID: FGFACILITY

**POLLUTION CONTROL EQUIPMENT: RTO** 

# I. EMISSION LIMITS

| Pollutant                                   | Limit        | Time Period / Operating Scenario | Equipment       | Compliance Determination  |
|---|--------------|----------------------------------|-----------------|---|
| 1.<br>Formaldehyde<br>(CAS No. 50-00-<br>0) | 0.26<br>pph* | Hourly                           | EU-<br>ROLLCURE | Undetermined- Stack test was conducted but not for this process. As part of the US EPA stack test, facility will be subject to stack testing in 2024 and every five years thereafter. |

<sup>\*</sup> Mass emission rate before control device.

#### II. MATERIAL LIMITS

NA

#### III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EU-ROLLCURE uncontrolled for more than 876 hours per 12-month rolling time period as determined at the end of each calendar month. (R 336.1224, R 336.1702(a))

Compliance- Records were received. Bypass hours were 231 hours for the calendar year.

#### IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-ROLLCURE unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC control (combined capture and destruction) efficiency of 91.2 percent (by weight), a minimum temperature of 1400°F, a minimum retention time of 0.5 seconds, and in accordance with an approved MAP. Unless, EU-ROLLCURE is operated per SC III.1. (R 336.1225, R 336.1702, R 336.1910)

Undetermined- Facility will stack test in 2024.

#### V. TESTING/SAMPLING

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

1. Starting September 18, 2024, and every five calendar years thereafter, the permittee shall complete performance testing to measure the destruction efficiency of the RTO. During this performance testing, the permittee must be operating under conditions that are most challenging to the RTO and are also representative of operating conditions (excluding startups, shutdowns, and malfunctions). The permittee will propose these operating conditions in the test protocol submitted to the AQD with consideration given to operating with raw materials containing formaldehyde, as applicable. The permittee shall use the result of the most recent

capture efficiency test and destruction efficiency test to demonstrate compliance with the overall minimum efficiency required by the permit for the relevant emission units. The overall minimum efficiency for EU-ROLLCURE is specified in SC IV.1. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 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, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1224, R 336.1225, R 336.1702, R 336.1910, R 336.2001, R 336.2003, R 336.2004, Administrative Order EPA-5-21-113(a)-MI-01)

Undetermined- Facility will conduct initial test in 2024.

#### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1225, R 336.1702)

Compliance- Calculations are completed every month for the previous month.

2. The permittee shall monitor, in a satisfactory manner, the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1225, R 336.1702)

Compliance- Permittee is continuously monitoring temperature in the RTO.

3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each abrasive 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, R 336.1702)

Compliance- Permittee maintains current composition of each coating and solvent through database.

4. The permittee shall keep, in a satisfactory manner, records of operating hours when EU-ROLLCURE bypasses the RTO per 12-month rolling time period as determined at the end of each calendar month. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)

Undetermined- Records for this process was not requested as the focus of the inspection was the abrasive paper stack test.

5. The permittee shall keep, in a satisfactory manner, continuous records of the temperature in the RTO. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)

Compliance- Permittee is continuously monitoring temperature in the RTO.

#### VII. REPORTING

The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(1). The notification shall be submitted to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal. (R336.1225(4))

Compliance- No changes have occurred since the permit was issued.

#### 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<br>ID                                      | Maximum Exhaust Diameter/ Dimensions (inches) | Minimum Height Above Ground (feet) | Compliance<br>determination  |
|---|---|------------------------------------|--|
| 1.<br>SVROLL07BP<br>– Roll cure<br>oven bypass<br>stack | 36  | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |
| 2. SVRTO11 –<br>Thermal<br>oxidizer stack               | 68  | 45                                 | Compliance assumed but no measurements were taken. Stacks appeared to be correct height and diameter |

The following conditions apply Source-Wide to: FGFACILITY

# <u>POLLUTION CONTROL EQUIPMENT:</u> RTO

# I. EMISSION LIMITS

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment  | Compliance Determination |
|-----------|-------|---------------------------------|------------|--------------------------|
|           |       |                                 | FGFACILITY |                          |

| Pollutant            | Limit                       | Time Period/ Operating Scenario  | Equipment  | Compliance Determination  |
|----------------------|-----------------------------|--|------------|---|
| Individual           | Less<br>than<br>9.0 tpy     | 12-month rolling time period as determined at the end of each calendar month |            | Compliance assumed-<br>Inspection focused on<br>abrasive paper process.<br>Records received showed<br>total VOCs at around 10.9<br>TPY. Formaldehyde was<br>less 1.0 TPY. |
| 2. Aggregate<br>HAPs | Less<br>than<br>22.5<br>tpy | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | Compliance- Total VOCs<br>were 10.9 TPY, more than<br>half less than 22.5 TPY.  |

### 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))

1. 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- Permittee maintains current composition of each coating and solvent through database.

2. Starting September 18, 2024, and every five calendar years thereafter, the permittee shall complete performance testing to measure the destruction efficiency of the RTO. During this performance testing, the permittee must be operating under conditions that are most challenging to the RTO and are also representative of operating conditions (excluding startups, shutdowns, and malfunctions). The permittee will propose these operating conditions in the test protocol submitted to the AQD with consideration given to operating with raw materials containing formaldehyde, as applicable. The permittee shall use the result of the most recent capture efficiency test and destruction efficiency test to demonstrate compliance with the overall minimum efficiency required by the permit for the relevant emission units. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AOD to make the change. No less than 30 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, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1224, R 336.1225, R 336.1702, R 336.1910, R 336.2001, R 336.2003, R 336.2004, Administrative Order EPA-5-21-113(a)-MI-01)

Undetermined- Facility will conduct initial test in 2024.

#### VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3))

Compliance- Permittee is up to date in demonstrating calculations

- 2. The permittee shall keep the following information on a calendar month 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 cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, 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- Permittee maintains current composition of each coating and solvent through database.

#### APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

N/A

**MAERS REPORT REVIEW:** 

**2021 MAERS** 

| Pollutant | Emissions (TPY) |
|-----------|-----------------|
| СО        | 1.01            |
| NOX       | 4.04            |
| voc       | 10.6            |

#### FINAL COMPLIANCE DETERMINATION:

The facility appears to be in compliance with applicable regulations at the time of the inspection.

DATE 9-30-22 SUPERVISOR April L. Wendley 5