

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

P063469240

<b>FACILITY:</b> Worthen Coated Fabrics	<b>SRN / ID:</b> P0634	
<b>LOCATION:</b> 1125 41st Street SE, GRAND RAPIDS	<b>DISTRICT:</b> Grand Rapids	
<b>CITY:</b> GRAND RAPIDS	<b>COUNTY:</b> KENT	
<b>CONTACT:</b> Kristi Koetje , Quality/Environmental Manager	<b>ACTIVITY DATE:</b> 08/02/2023	
<b>STAFF:</b> April Lazzaro	<b>COMPLIANCE STATUS:</b> Non Compliance	<b>SOURCE CLASS:</b> MAJOR
<b>SUBJECT:</b> Unannounced, scheduled inspection		
<b>RESOLVED COMPLAINTS:</b>		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, scheduled inspection and met with Kristi Koetje, Quality/Environmental Manager. Upon arrival, no odors or visible emissions were observed.

### FACILITY DESCRIPTION

Worthen Coated Fabrics is a fabric coating facility, located in an industrial zone in southeast Grand Rapids. The plant knife-coats fabric to prepare it for making clothing labels as well as for other uses. The coating line (EU-FabricCoating), consists of knife coating of textiles with solvent and water-based coating materials and solvent clean-up. A textile web is continuously fed to a coater stand, which presses the coating to the desired thickness for the product. The solvent coating is controlled by a permanent total enclosure (PTE), vented to a regenerative thermal oxidizer (RTO), which controls emissions created by the coating, solvents, and exhaust emissions from the natural gas fired drying oven. The solvent clean-up on the line is controlled, and there are also uncontrolled clean-up emissions that take place outside of the PTE. The water-based coating materials are not controlled by the RTO, however they are vented through the RTO stack having by-passed the combustion chamber.

The facility meters ingredients and mixes the coatings as necessary in a coating mix preparation room (EU-MixRoom) equipped with dispersion mills which are exhausted to the atmosphere through a carbon adsorption system. The company utilizes any used clean-up solvent by treating it as a coating thinner in the applied coatings whenever possible.

While the permit contains conditions related to two (2) cold cleaners (FG-COLDCLEANERS), during the inspection Worthen stated that they do not currently operate any.

The facility is permitted via Renewable Operating Permit No. MI-ROP-P0634-2023 which limits Volatile Organic Compounds (VOC) from EU-FabricCoating to 26.6 tons per year. Since only the emission unit has synthetic minor limits for VOC, and not facility-wide limits this is not considered a VOC Opt-out. The permit does not limit Hazardous Air Pollutants (HAP), and Worthen is a major source of HAP. As such, the facility is subject to 40 CFR Part 63, Subpart OOOO- National Emission Standards for Hazardous Air Pollutants: Printing, Coating and Dyeing of Fabrics and Other Textiles. The initial start-up date was January 4, 2016. The compliance testing which was late was conducted on October 11, 2016. The information obtained during testing was acceptable to determine compliance.

Worthen is also subject to the New Source Performance Standard for Polymeric Coating of Supporting Substrates Facilities found in 40 CFR Part 60 Subpart VVV (NSPS VVV), for both EU-FabricCoating and EU-MixRoom. The initial start-up date was on June 8, 2016, and the initial notification was received on July 12, 2021.

In response to alleged violations of Rule 910 and NSPS VVV, Worthen signed a Stipulation for Entry of Final Order by Consent (Consent Order) No. 2022-15 which was finalized on October 25, 2022. This order required payment of a monetary penalty and identifies conditions for stipulated penalties if any conditions of the Consent Order are violated. Additional Consent Order compliance information is discussed below.

## **COMPLIANCE EVALUATION**

### **MI-ROP-P0634-2023**

EU-FabricCoating, includes the two coating applicators contained in the PTE's during solvent-based and water-based coating application. VOC and HAP emissions generated during solvent-based coating application are controlled by the RTO. VOC and HAP emissions generated during water-based coating application are uncontrolled.

### **EU-FabricCoating**

#### **EMISSION LIMITS**

The VOC emissions are limited to 26.6 tons per 12-month rolling time period. The reported VOC emissions for the time period of July 2022 through June 2023 are 5.96 tons (up from 4.32 tons during the previous inspection).

#### **MATERIAL LIMITS**

The VOC content of water-based coatings is limited to 1.2 lb/gal (minus water) as applied. Worthen is currently using water-based coatings that contain small amounts of VOC. The records that were supplied to AQD did not contain the lb/gal (minus water) as applied VOC number. During the records review conducted during the previous inspection, the AQD requested that Worthen modify the records going forward to include a column for this value to make compliance easier to assess.

Following an additional information request this was provided timely and the data indicates that the highest VOC content in water-based coatings used is 0.4 lb/gal. This indicates compliance with the material limit.

#### **PROCESS/OPERATIONAL RESTRICTIONS**

During the inspection, AQD staff did not observe improper handling or capture of waste or cleanup solvents, however suggestions were made regarding the collection of cans observed in the area adjacent to the coating line where containers with solidified coating was observed. It is noted that any use of solvent in this area must be recorded separately from the controlled solvent emissions used on the coating line when the RTO is operating.

A malfunction abatement plan (MAP) has been submitted to the AQD. It is suggested that Worthen periodically review and evaluate the effectiveness of this plan.

The permittee is required to maintain a minimum of 0.007” H<sub>2</sub>O pressure differential between the PTE and the adjacent area on a continuous basis. Based on discussions with the permit engineer, which were discussed with Worthen, this value applies at all times, and includes both solvent-based and water-based coating application. Additionally, the value applies even if coating is not being applied in the second PTE, since the coated fabric travels through the PTE during both solvent-based and water-based coating application. Pressure differential records were evaluated for compliance. In addition to these records, Worthen included a summary of exceedances, which indicated that on May 9-11, 2023, the computer that records PTE readings lost communication sporadically. The report states that when readings were recorded, it read 0 or positive numbers. An outside contractor was contacted on May 9<sup>th</sup> and came out to repair the system and afterwards, all systems were operating normally. Additionally, on May 17, 2023, PTE 1 lost pressure for 27 minutes when it is believed the enclosure door was left open when drums were being moved.

During a review of the records, additional days and times were identified as those where coating application in either or both PTE one and two, where the pressure differential in a PTE was greater than 0.007” H<sub>2</sub>O.

The table below identifies the days and times during the period reviewed where the recordkeeping provided showed non-compliance with the pressure differential limit.

<b>Date</b>	<b>Solvent/Water Based</b>	<b>Approximate Duration (PTE 1 and 2 combined)</b>	<b>PTE 1</b>	<b>PTE 2</b>
<b>1/2/2023</b>	<b>Water</b>	<b>13 hr 45 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/3/2023</b>	<b>Water</b>	<b>5 hr 10 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/4/2023</b>	<b>Water</b>	<b>19 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/6/2023</b>	<b>Water</b>	<b>7 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/9/2023</b>	<b>Water</b>	<b>3 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/16/2023</b>	<b>Water</b>	<b>6 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>

<b>1/17/2023</b>	<b>Water</b>	<b>50 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/24/2023</b>	<b>Water</b>	<b>10 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/25/2023</b>	<b>Water</b>	<b>10 hr 45 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>1/31/2023</b>	<b>Water</b>	<b>9 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/2/2023</b>	<b>Solvent</b>	<b>1 minute</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/6/2023</b>	<b>Water</b>	<b>7 hr 25 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/7/2023</b>	<b>Water</b>	<b>10 hr 10 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/7-2/8/2023</b>	<b>Water</b>	<b>14 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/8/2023</b>	<b>Water</b>	<b>6 hr 30 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/9-10/2023</b>	<b>Water</b>	<b>14 hours</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/13/2023</b>	<b>Water</b>	<b>8 hrs 40 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/21/2023</b>	<b>Water</b>	<b>11 hrs</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/27/2023</b>	<b>Water</b>	<b>40 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>2/27-2/28</b>	<b>Water</b>	<b>14 hr 5 min</b>	<b>Compliance</b>	<b>Non-compliance</b>

<b>3/6/2023</b>	<b>Water</b>	<b>59 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/10-3/11/2023</b>	<b>Water</b>	<b>7 hr 30 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/14-15/2023</b>	<b>Water</b>	<b>20 hr 55 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/15-16/2023</b>	<b>Water</b>	<b>28 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/16-17/2023</b>	<b>Water</b>	<b>11 hr 38 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/17-3/18/2023</b>	<b>Water</b>	<b>17 hr 43 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/20/2023</b>	<b>Water</b>	<b>11 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/21-22/2023</b>	<b>Water</b>	<b>13 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/23-24/2023</b>	<b>Water</b>	<b>12 hr 50 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/24-25/2023</b>	<b>Water</b>	<b>8 hr 55 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/26-27/2023</b>	<b>Water</b>	<b>2 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>3/31-4/1/2023</b>	<b>Water</b>	<b>22 hr 45 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/7/2023</b>	<b>Water</b>	<b>2 hr 30 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/10/2023</b>	<b>Water</b>	<b>14 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>

<b>4/11/2023</b>	<b>Water</b>	<b>4 hr 50 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/14-15/2023</b>	<b>Water</b>	<b>24 hr</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/24/2023</b>	<b>Water</b>	<b>3 hr 15 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/24-25/2023</b>	<b>Solvent</b>	<b>9 hr 12 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/26/2023</b>	<b>Solvent</b>	<b>6 hr 5 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/27/2023</b>	<b>Water</b>	<b>4 hr 28 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>4/27-28/2023</b>	<b>Water</b>	<b>6 hr 11 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/1-5/2/2023</b>	<b>Water</b>	<b>5 hr 24 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/2-5/3/2023</b>	<b>Water</b>	<b>3 hr 2 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/3/2023</b>	<b>Water</b>	<b>7 hr 2 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/4/2023</b>	<b>Solvent</b>	<b>4 hr 11 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/8/2023</b>	<b>Water</b>	<b>11 hr 8 min</b>	<b>Non-Compliance</b>	<b>Non-compliance</b>
<b>5/9/2023</b>	<b>Water</b>	<b>5 hr 40 min</b>	<b>Non-Compliance</b>	<b>Non-compliance</b>
<b>5/10/2023</b>	<b>Solvent</b>	<b>3 hr 2 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>

<b>5/10/2023</b>	<b>Solvent</b>	<b>4 hr 53 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/10-11/2023</b>	<b>Solvent</b>	<b>16 hr 18 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/12/23</b>	<b>Solvent</b>	<b>10 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/15-16/2023</b>	<b>Water</b>	<b>40 hr 48 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/16-17/2023</b>	<b>Solvent</b>	<b>15 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/17-18/2023</b>	<b>Solvent</b>	<b>5 hr 46 min</b>	<b>Non-compliance</b>	<b>Compliance</b>
<b>5/18/2023</b>	<b>Solvent</b>	<b>3 hr 18 min</b>	<b>Non-compliance</b>	<b>Compliance</b>
<b>5/22/2023</b>	<b>Water</b>	<b>5 hr 18 min</b>	<b>Compliance</b>	<b>Non-compliance</b>
<b>5/22-23/23</b>	<b>Water</b>	<b>14 hr 46 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/24-25/2023</b>	<b>Water</b>	<b>24 hr</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/26/2023</b>	<b>Water</b>	<b>26 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/26/2023</b>	<b>Water</b>	<b>6 hr 16 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>
<b>5/31/2023</b>	<b>Water</b>	<b>16 hr 56 min</b>	<b>Non-compliance</b>	<b>Non-compliance</b>

For purposes of determining compliance with MI-ROP-P0634-2023, EU-FabricCoating Special Condition (SC) III.4, the time period of maintaining the pressure differential greater than 0.007” H<sub>2</sub>O is continuous and there is no averaging period, which was confirmed with the AQD Permit Section. Continuous is specified in EU-Fabric-Coating SC VI.4 as, “Pressure differential data recording shall consist of

measurements made at equally spaced intervals, not to exceed 15 minutes per interval". Based on the above identified periods of non-compliance, a Violation Notice will be issued. This is a violation of EU-FABFICCOATING, Special Condition No. III.4 and Paragraph 9(A)(1), of Consent Order AQD No. 2022-15.

## **DESIGN/EQUIPMENT PARAMETERS**

The facility has installed and operates an RTO to control emissions from the application of solvent-based coatings. Testing indicated that performance was above the required 98% destruction efficiency. Retention time was proven based upon air flow and design capacity. The facility uses a data logger to monitor and record temperature of the RTO, as well as the pressure drop of the two PTE's. The RTO temperature gauge appeared to be operating properly. Worthen reported in the deviation report that on May 10-11 the computer system and pressure transducer that records the differential pressure in the PTE's were not operating properly requiring maintenance. This was repaired in a timely fashion, however the company continued to operate the process while unable to collect accurate data.

The permit states that for the operation of the PTE to be considered satisfactory, the PTE must operate at a pressure lower than all adjacent areas, so that air flows into the PTE through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. Since the PTE is not operating this way, as evidenced by the many positive pressure readings, this is a violation of EU-FabricCoating Special Condition No. IV.3 and Paragraph 9(A)(1), Consent Order AQD No. 2022-15. A Violation Notice will be issued.

## **Testing/Sampling**

The permittee is required to determine VOC content, water content and density as applied and as received using Method 24 on an annual basis. Test data was requested and received for the 5 most frequently used water based and solvent based coating in 2022. It is noted that the values noted in the records, do not appear to align with those in the records provided. While the laboratory data shows lower VOC content than what the records indicate, Worthen should address these differences going forward. It is also noted that more care to match the lab named samples to the names used in the records to identify each coating should be used.

Additional stack testing on the EU-FabricCoating RTO is required before October 25, 2024 pursuant to the agreement contained in Consent Order AQD No. 2022-15.

## **MONITORING/RECORDKEEPING**

Permit recordkeeping was requested and reviewed. The monitoring program on the coating line monitors the status of the line and whether it is in solvent-based application or water-based application. The permittee shall monitor and record, in a satisfactory manner, all RTO by-pass times, and the reason for the by-pass. Based on feedback following an inspection by EPA Region 5 staff, Worthen has made changes to make compliance with this condition easier to determine.

The permittee reported that there were times where they failed to monitor and record, in a satisfactory manner, the pressure differential between the PTE for EU-FabricCoating and the adjacent area, on a continuous basis, to verify that air is entering the PTE. Pressure differential data recording shall consist of measurements

made at equally spaced intervals, not to exceed 15 minutes per interval. However, this was due to equipment failure, appropriate action was taken in response to the equipment failure and was reported to AQD as required.

Worthen continues to conduct the required inspections of the RTO pursuant to the Malfunction Abatement Plan and Compliance Assurance Monitoring (CAM) Plan. During the inspections, Worthen has not addressed the noise made during bed changeover of the unit, insisting that the noise is normal, according to the manufacturer of the RTO. In the experience of the AQD, this noise is not normal, and it should be corrected immediately.

The current condition for the CAM Plan states, “The permittee shall evaluate the capture efficiency of the capture system by monitoring the pressure drop across the PTE. This shall be monitored continuously at one-minute intervals on a data acquisition system or other method and recorded continuously. The indicator range is -1.0 to 1.0” water column. (40 CFR 64.3(a)(2)) However, as noted above, there are hours of exceedances of the PTE pressure differential/pressure drop that are greater than the permit limit of 0.007” H<sub>2</sub>O pressure differential between the PTE and the adjacent area on a continuous basis. The requirements of the CAM Plan do not appear not protective of this limit. A discussion with the AQD CAM Specialist is ongoing and the results will be relayed to Worthen. The CAM requirements only apply to times when the RTO is being used for solvent based coating application. However, there are times when the PTE differential pressure was out of range during solvent coating application.

The combustion temperature of the RTO is continuously monitored and recorded in an acceptable manner, and while the permit temperature limit is instantaneous, the CAM condition allows for a 1-hour average according to the AQD CAM Specialist.

## **REPORTING**

It is noted not all deviations were included in the semi-annual monitoring and deviation report for January 1 - June 30, 2023. The report should be corrected and resubmitted.

## **STACK/VENT RESTRICTIONS**

The stack height was measured in 2021 using a Nikon Forestry Pro II Laser Rangefinder/Hypsometer, no changes to the stack have been made. The stack height was in compliance.

## **FG-MACT-0000**

## **EMISSION LIMITS**

The facility is currently keeping records to demonstrate compliance with the emission rate with add on controls to meet a 98% overall control efficiency. 40 CFR Part 63.4291(a)(3) states that based on the regulated materials applied in the web coating/printing operation(s) and the organic HAP emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the web coating/printing operation(s) is less than or equal to the applicable emission limit in Table 1 to this subpart, calculated as a rolling 12-month average emission rate. The applicable emission limit in Table 1 is 98% overall control efficiency.

Worthen reported zero exceedances for the most recent reporting period obtained. Stack testing conducted on September 28, 2021 indicated a 98.36% destruction efficiency.

#### **MATERIAL LIMITS**

There are no material limits listed in this flexible group.

#### **PROCESS/OPERATIONAL RESTRICTIONS**

There are a variety of operating limits as prescribed by the NESHAP/MACT. This includes limits for the capture systems and add-on control device, work practice standards, and start-up, shutdown malfunction plans (SSM).

The operating limits for the capture and control devices were determined during the stack test of September 2021. The three-hour block average temperature for the RTO as determined in accordance with 63.4363(a) is 1,575°F. A three-hour block only needs to be calculated if the temperature goes below 1,575°F on an instantaneous basis.

The capture system monitoring plan required by 63.4364(e), submitted by Worthen identifies a differential pressure reading for the capture system must remain below the 0.007" H<sub>2</sub>O. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit in accordance with 40 CFR 63.4364(e)(4). As shown in the table above, there are times during solvent coating application when the differential pressure is above 0.007" H<sub>2</sub>O. As such, a violation for failure to meet the operating limits established in 63.4292 as required by FG-MACT-OOOO, Special Condition III.4 will be included in the Violation Notice. The capture system monitoring plan has been reviewed annually as required.

Records of RTO temperatures and pressure drop of the capture system were requested and reviewed. No deviations for temperature issues have been self-reported by the company.

#### **DESIGN/EQUIPMENT PARAMETERS**

NA

#### **TESTING/SAMPLING**

The permittee has conducted a satisfactory performance test of the emission capture system and add-on control device. The two enclosures are verified Method 204 PTE's. One of the PTE's sustained a fire in 2020. As such the facility removed the natural draft openings and conducted a new PTE evaluation which is acceptable.

#### **MONITORING/RECORDKEEPING**

It is noted that the successive three-hour block RTO temperature averages should begin at midnight each night. As stated in 63.4364, to have a valid hour of data you must have at least three of four equally spaced data values from an hour. (currently, Worthen uses a data point every 1 minute) According to the regulation, to calculate a three-hour average, you must have at least two of three of the hourly averages for that period.

As indicated, the two enclosures at Worthen qualify as Method 204 PTE, as reviewed and evaluated by AQD Technical Programs Unit staff Jeremy Howe. (see file for detailed review) To be considered a PTE the booths must meet the physical design standards, which they do. They also must meet air flow standards, of at least 200 feet per minute (fpm). Alternatively, 200 fpm corresponds to a pressure drop of 0.007" H<sub>2</sub>O. The three hour average readings taken during the 2021 compliance test were a pressure drop of -0.032" H<sub>2</sub>O. Worthen is required to develop a site-specific monitoring plan that contains information as required in 63.4364(e). This is not the same as the compliance assurance monitoring (CAM) plan. It would be acceptable for Worthen to identify parameters between 0.007" H<sub>2</sub>O and 0.032" H<sub>2</sub>O as a valid range for ensuring that the capture efficiency of 100% is maintained. The current plan does not identify a range, as described above, it lists a differential pressure of 0.007" H<sub>2</sub>O.

## **REPORTING**

It is noted not all deviations were included in the semi-annual monitoring and deviation report for January 1 - June 30, 2023. The report should be corrected and resubmitted.

## **STACK/VENT RESTRICTIONS**

NA

## **OTHER REQUIREMENTS**

Worthen shall comply with all requirements of 40 CFR 63, Subparts A and OOOO.

## **FG-NSPS-VVV**

### **Emission Limits**

NA

### **Material Limits**

NA

### **Process/Operational Restriction(s)**

The efficiency of the coating line control device is above the minimum 95% requirement. The efficiency of the EU-MixRoom control device has not met the 95% efficiency requirement during the mixing of over 459 batches of coating. This is a violation of the permit, FG-NSPS-VVV and Paragraph 9(A)(2), Consent Order AQD No. 2022-15. A Violation Notice will be issued.

### **Design/Equipment Parameter(s)**

Worthen failed to maintain the total enclosure on EU-FabricCoating as required by the FG-NSPS-VVV, Special Condition No. IV.1, 40 CFR 60.743(b)(1)(i)-(vi) and Paragraph 9(A)(2), Consent Order AQD No. 2022-15. A Violation Notice will be issued.

The covers for the coating preparation equipment in EU-MixRoom, appeared to meet the requirements of the rule during the inspection, and procedures are posted.

As described, the coating mix preparation equipment is not being vented to a 95% efficient control device, as such this is a violation of FG-NSPS-VVV, Special Condition No. IV.4, 40 CFR 60.743(c)(3&4), Paragraph 9(A)(2), Consent Order AQD No. 2022-15. During the inspection, this violation had yet to be corrected, even though it had been occurring for a 6-month period of time. A Violation Notice will be issued.

#### Testing/Sampling

Testing of the RTO and Carbon Adsorption System (CAS) have been conducted as required. Additional testing is required by October 22, 2024 for the RTO and within five years for the CAS.

#### Monitoring/Recordkeeping

The monitoring and recordkeeping requirements are being maintained.

#### Reporting

Worthen failed to submit the required quarterly report in a timely fashion following a period where the CAS failed to meet a 95% control efficiency in accordance with 40 CFR 60.747(d), R 336.1213(3), Paragraph 9(A)(2), Consent Order AQD No. 2022-15. Worthen also failed to report this as a deviation as required by Special Condition No.VII.7, and Paragraph 9(A)(2), Consent Order AQD No. 2022-15. The requirements of reporting on a semi-annual basis are contained within the permit, however, Worthen did not include the 95% control efficiency deviations that occurred in January-March on this report as required. The violations noted above will be cited in a Violation Notice. It is also noted not all deviations were included in the semi-annual monitoring and deviation report for January 1 - June 30, 2023. The report should be corrected and resubmitted.

### FG-RULE290

#### EU-Mix-Room

The coating mix preparation room contains three mixers which are covered while in use, unless ingredients are being added which is appropriate. Worthen has identified the use of the Rule 290 exemption for the mix room emissions. Monthly emissions are less than 2 pounds using the control device.

#### COMPLIANCE SUMMARY

Worthen Coated Fabrics was in non-compliance at the time of the inspection.

NAME April Lazzaro

DATE 09/28/2023

SUPERVISOR HH