



The Future is Worth Doing Right™

November 16, 2023

Ms. April Lazzaro  
EGLE - Air Quality Division  
Grand Rapids District Office  
350 Ottawa Avenue NW, Unit 10  
Grand Rapids, MI 49503

**RE: Worthen Coated Fabrics (SRN P0634) Violation Notice dated October 17, 2023**

Dear April:

Worthen Coated Fabrics (Worthen) is in receipt of the Department of Environmental, Great Lakes, and Energy's (EGLE) Violation Notice (VN) dated October 17, 2023. The VN alleges violations to Renewable Operating Permit (ROP) MI-ROP-P0634-2023 and Consent Order AQD No. 2022-15 related to Worthen's fabric coating process and coating mix preparation equipment. Specifically, EGLE alleges that Worthen failed to:

1. operate the fabric coating line as a Permanent Total Enclosure (PTE) and maintain pressure drop readings greater than 0.007 inches of water pressure differential between the PTE and adjacent areas as required by the ROP, Consent Order, NSPS Subpart VVV, and NESHAP Subpart OOOO.
2. maintain 95% control efficiency of carbon adsorption system for the control of VOC emissions from the coating mix preparation equipment as required by the ROP, Consent Order, and NSPS Subpart VVV.
3. Submit a timely quarterly report as required by NSPS Subpart VVV.

A written response was requested by November 7, 2023, and an extension granted until November 17, 2023. As requested in the VN, Worthen's response outlined below includes the dates that the violations occurred, an explanation of the causes and duration of the violations, whether the violations are ongoing, a summary of the actions that have been taken and are proposed to be taken to correct the violations, the dates by which these actions will take place and what steps are being taken to prevent a reoccurrence.

## **PTE Compliance**

### Dates and Duration

As indicated in the VN, Worthen Coated Fabrics had several instances when one or both of the PTEs was not in compliance with the pressure differential. To clarify when the PTEs are required to be operated, Worthen has summarized its understanding of applicability under each regulation:

EGLE regulation:	PTEs are required to be operating during solvent and water-based coating.
NSPS Subpart VVV:	PTEs are required to be operating during solvent-based coating.
NESHAP Subpart OOOO:	Under the "emission rate with add on controls option" the PTEs are required to be operating during solvent and water-based coating. If Worthen chooses to comply with the "emission rate without add on controls option" for water-based coating and the "emission rate with add on controls option" for solvent-based coating, then the PTEs would only be required during solvent-based coating.

Below is a list of the dates and durations (please note that some of the dates and times summarized in your inspection report were not correct; these are noted in the table below).

Date	Coating type	Approximate duration	PTE ID	Note
1/2/2023	Water	13 hr 45 min	PTE2	
1/3/2023	Water	5 hr 10 min	PTE2	
1/4/2023	Water	19 hr	PTE2	
1/6/2023	Water	2 minutes	PTE2	Changed from 7 hrs water; there were only 2 minutes where PTE2 was positive pressure
1/6/2023	Solvent	1 hr 11 min	PTE2	added
1/9/2023	Water	3 hr	PTE2	
1/16-17/2023	Water	6 hr 50 min	PTE2	Changed from 6 hr to 6 hr 50 min from 1/16-17
1/24/2023	Water	10 hr	PTE2	
1/25/2023	Water	10 hr 45 min	PTE2	
1/31/2023	Water	9 hr	PTE2	
2/2/2023	Solvent	1 minute	PTE2	Heat setting only
2/6/2023	Water	7 hr 25 min	PTE2	
2/7/2023	Water	10 hr 10 min	PTE2	Heat setting only
2/7-8/2023	Water	14 hr	PTE2	
2/8/2023	Water	In compliance	NA	PTE1 and PTE2 were under negative pressure during coating operations
2/9-10/2023	Water	14 hr	PTE2	
2/13/2023	Water	8 hr 40 min	PTE2	
2/21/2023	Water	11 hr	PTE2	Heat setting only
2/27/2023	Water	40 min	PTE2	Heat setting only
2/27-28/2023	Water	14 hr 5 min	PTE2	
3/6/2023	Water	15 min	PTE2	Changed from 59 minutes
3/10-11/2023	Water	7 hr 30 min	PTE2	
3/14-15/2023	Water	20 hr 55 min	PTE2	Heat setting only
3/15-16/2023	Water	28 hr	PTE2	
3/16-17/2023	Water	11 hr 38 min	PTE2	
3/17-18/2023	Water	17 hr 43 min	PTE2	
3/20/2023	Water	11 min	PTE2	
3/21-22/2023	Water	13 hr	PTE2	
3/23-24/2023	Water	12 hr 50 min	PTE2	
3/24-25/2023	Water	8 hr 55 min	PTE2	
3/27/2023	Water	2 hr 22 min	PTE2	Changed from 3/26-27 to 3/27
3/31-4/1/2023	Water	22 hr 45 min	PTE2	
4/7/2023	Water	2 hr 30 min	PTE2	
4/10/2023	Water	14 hr	PTE2	
4/11/2023	Water	4 hr 50 min	PTE2	
4/14-15/2023	Water	24 hr	PTE2	

Date	Coating type	Approximate duration	PTE ID	Note
4/24/2023	Water	In compliance	NA	Water setting (tap water is applied to raw uncoated fabric)
4/24-25/2023	Solvent	9 hr 12 min	PTE2	
4/26/2023	Water	6 hr 5 min	PTE2	
4/27/2023	Water	4 hr 28 min	PTE2	
4/27-28/2023	Water	6 hr 11 min	PTE2	
5/1-2/2023	Water	5 hr 24 min	PTE1 & PTE2	Heat setting in PTE2
5/2-3/2023	Water	3 hr 2 min	PTE2	Heat setting only
5/3/2023	Water	7 hr 2 min	PTE2	
5/4/2023	Solvent	4 hr 11 min	PTE2	
5/8/2023	Water	11 hr 8 min	PTE1 & PTE2	
5/9/2023	Water	5 hr 40 min	PTE1 & PTE2	
5/10/2023	Solvent	3 hr 2 min	PTE1 & PTE2	Heat setting in PTE2
5/10/2023	Solvent	4 hr 53 min	PTE2	
5/10-11/2023	Solvent	16 hr 18 min	PTE1 & PTE2	
5/12/2023	Solvent	In compliance	NA	PTE1 and PTE2 were under negative pressure during coating operations
5/15-16/2023	Water	21 hr 40 min	PTE1 & PTE2	Changed from 40 hr 48 min
5/16-17/2023	Solvent	15 min	PTE1 & PTE2	
5/17-18/2023	Solvent	5 hr 46 min	PTE1	
5/18/2023	Solvent	3 hr 18 min	PTE1	
5/22/2023	Water	5 hr 18 min	PTE2	
5/22-23/2023	Water	14 hr 46 min	PTE1 & PTE2	
5/24-25/2023	Water	24 hr	PTE1 & PTE2	
5/26/2023	Water	26 min	PTE1 & PTE2	
5/25-26/2023	Water	6 hr 16 min	PTE1 & PTE2	
5/30-31/2023	Water	16 hr 56 min	PTE1 & PTE2	
6/1/2023	Water	7 hr	PTE1 & PTE2	
6/12/2023	Water	9 hr 50 min	PTE1 & PTE2	
6/13/2023	Water	11 hr 10 min	PTE1 & PTE2	
6/15-16/2023	Solvent	15 hr 30 min	PTE1	
6/20-21/2023	Solvent	50 minutes	PTE1	
6/26/2023	Water	12 hr 50 min	PTE1 & PTE2	
6/27/2023	Water	18 hr 35 min	PTE1 & PTE2	
6/28/2023	Water	16 hr 40 min	PTE1 & PTE2	
6/28-29/2023	Water	9 hr 25 min	PTE1 & PTE2	

#### Explanation of Cause of Violations

Worthen misinterpreted the ROP and thought the fabric coating line did not need to operate as a PTE when water-based coatings were being applied or when heat setting (no coating application) was being conducted. Therefore, there are many instances when the pressure reading was not in compliance as the PTE doors were open. In addition, on May 10<sup>th</sup> and 11<sup>th</sup>, the computer that records PTE pressure readings and pressure transducer were not operating properly. These instances in May were reported to EGLE in the semi-annual deviation report and included in the attached table.

### Actions Taken and Proposed Actions

On May 11<sup>th</sup>, the pressure transducer was replaced, and overall system maintenance was performed which corrected the issue that occurred from May 10-11. When Worthen received the Violation Notice on October 17<sup>th</sup>, immediate actions were taken to operate the entire coating line as a PTE as all times coatings (solvent and water based) are applied or when heat setting takes place. Worthen has posted neon green signs at all PTE doors stating that doors must be kept shut and under negative pressure during all times coating line is operating. The requirements of the permit were communicated to all coating line operators. Operators are and will be reminded of this requirement during weekly production meetings and monthly safety meetings.

### **95% Control Efficiency**

#### Dates and Duration

Attachment A contains the dates and durations from January 1 through September 30, 2023 that the carbon adsorption system was not operating at the required 95% control efficiency for control of VOC emissions during coating preparation in the Mix Room.

#### Explanation of Cause of Violations

VOC emissions from Worthen's mixing vessels during coating preparation are small and variable making it difficult to consistently achieve 95% control. Coating preparation includes mixing and addition of solvent and other chemicals to the mixer vessels. Chemical addition typically takes 10 minutes or less and mixing can range from 20 minutes to a couple of hours. During mixing VOC emissions will vary depending on the solvent content and mixing duration. VOC emissions during mixing are often low enough that there is not enough difference in the inlet and outlet concentrations to calculate a greater than 95% percent difference.

The total VOC emissions in 2022 from the mixing operation were 694 pounds (0.35 tons). Although 95% control is not consistently achieved, events causing a release of VOC emissions are achieving 95% control. During a normal "mixing event" there is typically a release of VOCs in the beginning but then returning to near background for over half the event duration. The sudden release of VOCs at the being is being absorbed by the carbon reducing the emissions at that point by 95%, however as the inlet concentration drops back to background levels, the overall difference in inlet and outlet concentrations decrease.

The current carbon adsorption system that Worthen installed in 2022 consists of (16) 12" x 18" x 1" filter cartridges in the upper chamber and (6) 9" x 9" x 18" in the lower chamber that contain approximately 509 pounds of carbon total. There are air gaps between each cartridge. Filters are replaced approximately once per month or when the outlet baseline creeps up.

#### Actions Taken and Proposed Actions and Dates

Corrective actions taken during calendar year 2023 include calibrating the system, operating the carbon bed fan continuously during all manufacturing hours, and changing out the carbon filters more frequently. These corrective actions have not achieved a continuous difference in inlet to outlet concentrations equaling over 95% adsorption. Worthen is in the process of ordering a new carbon adsorption system. The proposed new system would consist of two 55-gallon drums filled with activated carbon (approximately 800 pounds total). The new system would allow for increased contact time over the existing system. The new system would initially be under evaluation. This new system will be installed in late November or early December.

In addition to increasing the carbon amount we will be working with the EGLE and EPA to help determine compliance times or averaging periods.

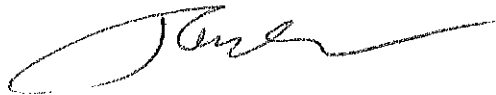
### **NSPS Subpart VVV Quarterly Report**

Worthen finalized the first quarter NSPS Subpart VVV report on April 26, 2023 for the time period of January 1 through March 31. The report was inadvertently not submitted by the due date of April 30<sup>th</sup>. On July 26<sup>th</sup> the report was emailed to you and the original report was mailed on July 27<sup>th</sup>. To prevent future occurrences of delayed report submissions, Worthen utilizes an environmental compliance tracking system that provides email alerts and reminders in advance of report due dates. In addition to the person responsible for the report, the corporate environmental manager receives emails updating them on report progress to insure timely submittal.

As requested in the VN, the semi-annual deviation report has been revised and is resubmitted as an attachment to this letter.

April, please contact me if you have any questions or require further information.

Sincerely,



Tony Harb  
Plant Manager  
Worthen Industries, Inc.

enclosures:

Attachment A – CAS non-compliance data  
Attachment B – revised Semi-annual Deviation Report

c: Ms. Jenine Camilleri  
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Kristi Koetje, Worthen  
Pam Doyon, Worthen  
Dave Gill, Worthen  
Amy Austin, POWER Engineers

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	1/4/2023	3:00 AM	4:00 AM	87%	060304-7 RW	SOL	1:00
On	1/5/2023	10:00 AM	11:00 AM	91%	040308-5	SOL	1:00
On	1/6/2023	9:00 PM	9:20 PM	68%	SF-1546A	SOL	0:20
On	1/6/2023	9:20 PM	9:40 PM	37%	SF-1546A	SOL	0:20
On	1/9/2023	12:00 PM	12:35 PM	82%	GRR-8126P	SOL	0:35
On	1/9/2023	1:00 PM	1:45 PM	85%	GRR-8125P	SOL	0:45
On	1/9/2023	3:50 PM	4:31 PM	90%	GRR-8126P	SOL	0:41
On	1/10/2023	4:30 PM	7:00 PM	86%	GRR-106	SOL	2:30
On	1/10/2023	6:15 PM	6:45 PM	87%	GRR-8125P	SOL	0:30
On	1/10/2023	7:00 PM	7:20 PM	91%	GRR-106OB	SOL	0:20
On	1/11/2023	8:00 AM	9:30 AM	68%	GRR-106	SOL	1:30
On	1/11/2023	9:50 AM	11:10 AM	81%	GRR-106OB	SOL	1:20
On	1/11/2023	11:20 AM	12:30 PM	80%	GRR-109	SOL	1:10
On	1/11/2023	12:50 PM	2:00 PM	86%	GRR-109OB	SOL	1:10
On	1/11/2023	3:00 PM	5:20 PM	80%	GRR-106	SOL	2:20
On	1/11/2023	4:10 PM	5:30 PM	72%	GRR-109OB	SOL	1:20
On	1/11/2023	7:30 PM	7:40 PM	83%	GRR-106OB	SOL	0:10
On	1/11/2023	7:40 PM	8:00 PM	58%	GRR-109OB	SOL	0:20
On	1/12/2023	3:15 AM	4:30 AM	68%	GRR-109	SOL	1:15
On	1/12/2023	3:15 AM	4:30 AM	68%	GRR-109OB	SOL	1:15
On	1/12/2023	6:00 AM	7:05 AM	88%	073118-1 DK TAN B/C	SOL	1:05
On	1/12/2023	6:00 PM	7:00 PM	88%	WT003N	SOL	1:00
On	1/12/2023	6:45 PM	8:00 PM	84%	GRR-109	SOL	1:15
On	1/12/2023	6:45 PM	8:00 PM	84%	GRR-109OB	SOL	1:15
On	1/12/2023	10:00 PM	11:20 PM	82%	050109-2 DK TAN T/C	SOL	1:20
On	1/13/2023	1:00 AM	2:45 AM	77%	050109-2 DK TAN T/C	SOL	1:45
On	1/13/2023	2:45 AM	4:00 AM	83%	073118-1 DK TAN B/C	SOL	1:15
On	1/13/2023	9:00 AM	10:00 AM	68%	GRR-110OB	SOL	1:00
On	1/13/2023	9:00 PM	9:45 PM	82%	WT003N	SOL	0:45
On	1/13/2023	9:45 PM	10:40 PM	57%	WT003N	SOL	0:55
On	1/13/2023	11:00 PM	12:30 AM	93%	GRR-7071	SOL	1:30
On	1/14/2023	3:20 AM	3:40 AM	71%	GRR-110OB	SOL	0:20
On	1/14/2023	4:00 AM	4:30 AM	23%	GRR-110OB	SOL	0:30
On	1/18/2023	7:00 AM	7:45 AM	93%	WT003N	SOL	0:45
On	1/18/2023	7:30 AM	8:50 AM	75%	02286-2	SOL	1:20
On	1/18/2023	1:45 PM	3:00 PM	94%	02286-2	SOL	1:15
On	1/18/2023	7:30 PM	7:45 PM	74%	02008-7OB	SOL	0:15
On	1/18/2023	7:45 PM	8:00 PM	71%	02008-7OB	SOL	0:15
On	1/18/2023	8:00 PM	8:20 PM	71%	02008-7OB	SOL	0:20
On	1/18/2023	8:20 PM	8:40 PM	79%	02286-2	SOL	0:20
On	1/18/2023	8:20 PM	8:40 PM	79%	02286-2OB	SOL	0:20
On	1/18/2023	8:40 PM	9:00 PM	73%	02286-2	SOL	0:20
On	1/18/2023	8:40 PM	9:00 PM	73%	02286-2OB	SOL	0:20
On	1/18/2023	9:00 PM	9:30 PM	73%	02286-2	SOL	0:30
On	1/18/2023	9:00 PM	9:30 PM	73%	02286-2OB	SOL	0:30

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	1/19/2023	4:10 AM	4:45 AM	81%	WT003N	SOL	0:35
On	1/19/2023	8:00 AM	10:00 AM	81%	GRR-106	SOL	2:00
On	1/19/2023	10:00 AM	10:10 AM	74%	GRR-106OB	SOL	0:10
On	1/19/2023	5:00 PM	6:00 PM	83%	GRR-106	SOL	1:00
On	1/19/2023	6:00 PM	6:10 PM	87%	GRR-106OB	SOL	0:10
On	1/19/2023	8:15 PM	8:40 PM	61%	GRR-106	SOL	0:25
On	1/19/2023	8:15 PM	8:40 PM	61%	GRR-106OB	SOL	0:25
On	1/19/2023	8:40 PM	9:10 PM	74%	GRR-109OB	SOL	0:30
On	1/19/2023	9:20 PM	10:00 PM	69%	GRR-109	SOL	0:40
On	1/19/2023	9:20 PM	10:00 PM	69%	GRR-109OB	SOL	0:40
On	1/20/2023	7:00 AM	9:00 AM	93%	GRR-106	SOL	2:00
On	1/20/2023	9:00 AM	9:10 AM	71%	GRR-106OB	SOL	0:10
On	1/20/2023	10:00 AM	11:00 AM	91%	GRR-109	SOL	1:00
On	1/20/2023	10:40 AM	11:00 AM	93%	GRR-106OB	SOL	0:20
On	1/20/2023	12:00 PM	1:00 PM	91%	GRR-109	SOL	1:00
On	1/20/2023	1:00 PM	1:10 PM	86%	GRR-109OB	SOL	0:10
On	1/20/2023	2:00 PM	2:30 PM	87%	GRR-106OB	SOL	0:30
On	1/20/2023	7:00 PM	8:00 PM	88%	GRR-106	SOL	1:00
On	1/20/2023	7:00 PM	8:00 PM	88%	GRR-106OB	SOL	1:00
On	1/20/2023	7:30 PM	8:30 PM	85%	GRR-106	SOL	1:00
On	1/20/2023	7:30 PM	8:30 PM	85%	GRR-106OB	SOL	1:00
On	1/20/2023	8:00 PM	9:30 PM	86%	GRR-109	SOL	1:30
On	1/20/2023	8:00 PM	9:30 PM	86%	GRR-109OB	SOL	1:30
On	1/23/2023	12:00 PM	12:45 PM	87%	WT003N	SOL	0:45
On	1/23/2023	3:00 PM	3:45 PM	92%	WT003N	SOL	0:45
On	1/25/2023	7:00 PM	7:30 PM	86%	GRR-109	SOL	0:30
On	1/25/2023	7:30 PM	8:00 PM	85%	GRR-109	SOL	0:30
On	1/25/2023	8:00 PM	8:30 PM	85%	GRR-106	SOL	0:30
On	1/25/2023	8:00 PM	8:30 PM	85%	GRR-104	SOL	0:30
On	1/25/2023	8:30 PM	9:00 PM	94%	GRR-106	SOL	0:30
On	1/25/2023	8:30 PM	9:00 PM	94%	GRR-104	SOL	0:30
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-106	SOL	1:15
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-104	SOL	1:15
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-109	SOL	1:15
On	1/27/2023	8:00 AM	9:00 AM	92%	Perm-8	SOL	1:00
On	1/27/2023	7:00 PM	8:20 PM	87%	GRR-109	SOL	1:20
On	1/27/2023	11:00 PM	1:00 AM	92%	GRR-109	SOL	2:00
On	1/28/2023	12:30 AM	2:00 AM	92%	GRR-106	SOL	1:30
On	1/28/2023	6:30 PM	7:00 PM	74%	Perm-7	SOL	0:30
On	1/28/2023	7:00 PM	7:25 PM	75%	Perm-7	SOL	0:25
On	1/28/2023	7:45 PM	8:10 PM	74%	605-PW	SOL	0:25
On	1/28/2023	8:10 PM	8:30 PM	74%	605-PW	SOL	0:20
On	1/28/2023	10:30 PM	11:00 PM	74%	605-PW	SOL	0:30
On	1/29/2023	12:00 AM	1:30 AM	73%	Perm-7	SOL	1:30
On	2/1/2023	1:39 PM	2:05 PM	93%	GRR-8125P	SOL	0:26



Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	2/2/2023	2:00 AM	2:30 AM	91%	GRR-8125P	SOL	0:30
On	2/3/2023	10:00 AM	11:00 AM	92%	GRR-7071	SOL	1:00
On	2/4/2023	2:00 AM	2:30 AM	91%	GRR-7071	SOL	0:30
On	2/4/2023	2:30 AM	3:00 AM	79%	GRR-7071	SOL	0:30
On	2/9/2023	12:00 PM	1:00 PM	79%	GRR-81	SOL	1:00
On	2/10/2023	11:30 PM	12:45 AM	91%	WT003N	SOL	1:15
On	2/13/2023	7:00 PM	7:30 PM	68%	GRR-8125P	SOL	0:30
On	2/13/2023	7:30 PM	8:00 PM	85%	GRR-8125P	SOL	0:30
On	2/13/2023	7:30 PM	8:00 PM	85%	GRR-8125P	SOL	0:30
On	2/13/2023	8:00 PM	8:20 PM	90%	GRR-8126P	SOL	0:20
On	2/13/2023	8:30 PM	9:00 PM	86%	GRR-8126P	SOL	0:30
On	2/13/2023	9:00 PM	9:30 PM	86%	GRR-8126P	SOL	0:30
On	2/14/2023	3:30 AM	4:15 AM	92%	GRR-8125P	SOL	0:45
On	2/14/2023	11:00 AM	12:00 PM	90%	GRR-8125P	SOL	1:00
On	2/14/2023	1:00 PM	1:30 PM	94%	GRR-81	SOL	0:30
On	2/14/2023	1:00 PM	2:00 PM	94%	GRR-8126P	SOL	1:00
On	2/14/2023	2:00 PM	2:30 PM	87%	GRR-81	SOL	0:30
On	2/15/2023	8:00 AM	9:00 AM	92%	GRR-8125P	SOL	1:00
On	2/15/2023	10:00 AM	10:30 AM	91%	GRR-8126P	SOL	0:30
On	2/15/2023	4:00 PM	4:30 PM	94%	GRR-109	SOL	0:30
On	2/16/2023	8:00 AM	10:00 AM	93%	GRR-106	SOL	2:00
On	2/16/2023	2:00 PM	3:00 PM	90%	GRR-7071	SOL	1:00
On	2/16/2023	3:00 PM	4:00 PM	84%	GRR-7071	SOL	1:00
On	2/16/2023	4:00 PM	5:00 PM	82%	GRR-7071	SOL	1:00
On	2/17/2023	1:45 AM	3:00 AM	85%	GRR-106	SOL	1:15
On	2/17/2023	1:45 AM	3:00 AM	85%	GRR-104	SOL	1:15
On	2/17/2023	3:00 AM	4:15 AM	93%	GRR-109	SOL	1:15
On	2/17/2023	3:00 AM	4:15 AM	93%	GRR-109OB	SOL	1:15
On	2/17/2023	9:30 PM	11:00 PM	92%	GRR-106	SOL	1:30
On	2/17/2023	9:30 PM	11:00 PM	92%	GRR-106OB	SOL	1:30
On	2/17/2023	10:00 PM	11:30 PM	89%	GRR-7071	SOL	1:30
On	2/18/2023	12:00 AM	12:30 AM	92%	GRR-109OB	SOL	0:30
On	2/21/2023	8:00 AM	9:00 AM	77%	GRR-81	SOL	1:00
On	2/21/2023	9:00 AM	10:00 AM	79%	GRR-81	SOL	1:00
On	2/22/2023	11:00 AM	12:00 PM	61%	GRR-8126P	SOL	1:00
On	2/22/2023	12:00 PM	1:00 PM	59%	GRR-8125P	SOL	1:00
On	2/22/2023	8:30 PM	9:00 PM	76%	GRR-8125P	SOL	0:30
On	2/22/2023	9:30 PM	10:00 PM	71%	GRR-8125P	SOL	0:30
On	2/22/2023	10:00 PM	10:30 PM	63%	GRR-8126P	SOL	0:30
On	2/22/2023	10:30 PM	11:00 PM	66%	GRR-8126P	SOL	0:30
On	2/23/2023	3:00 AM	4:30 AM	72%	GRR-8126P	SOL	1:30
On	2/23/2023	3:00 AM	4:30 AM	72%	GRR-8126P	SOL	1:30
On	2/23/2023	2:00 PM	3:00 PM	90%	060513-1HF FR	SOL	1:00
On	2/23/2023	4:00 PM	5:00 PM	94%	060513-1HF FR	SOL	1:00
On	2/23/2023	7:00 PM	7:30 PM	90%	02008-7	SOL	0:30



Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	2/23/2032	7:00 PM	7:30 PM	90%	02008-70B	SOL	0:30
On	2/23/2023	7:30 PM	8:00 PM	88%	02008-7	SOL	0:30
On	2/23/2023	7:30 PM	8:00 PM	88%	02008-70B	SOL	0:30
On	2/23/2023	9:30 PM	11:30 PM	52%	02286-2	SOL	2:00
On	2/23/2023	9:30 PM	11:30 PM	52%	02286-20B	SOL	2:00
On	2/23/2023	11:30 PM	11:45 PM	39%	02286-20B	SOL	0:15
On	2/24/2023	11:00 AM	12:00 PM	78%	GRR-7071A	SOL	1:00
On	2/24/2023	7:00 PM	8:30 PM	91%	060513-1HF FR	SOL	1:30
On	2/25/2023	4:45 AM	5:15 AM	60%	GRR-7071A	SOL	0:30
On	2/28/2023	8:00 AM	10:00 AM	94%	GRR-8125P	SOL	2:00
On	2/28/2023	12:00 PM	2:00 PM	92%	GRR-8125P	SOL	2:00
On	3/1/2023	3:45 AM	4:30 AM	93%	GRR-8125P	SOL	0:45
On	3/1/2023	10:00 AM	11:00 AM	71%	GRR-106	SOL	1:00
On	3/1/2023	2:00 PM	3:00 PM	81%	GRR-109	SOL	1:00
On	3/1/2023	4:00 PM	5:00 PM	83%	GRR-109	SOL	1:00
On	3/1/2023	8:30 PM	9:30 PM	94%	GRR-8125P	SOL	1:00
On	3/2/2023	1:15 AM	1:45 AM	94%	GRR-81	SOL	0:30
On	3/2/2023	4:00 AM	5:39 AM	91%	GRR-109	SOL	1:39
On	3/2/2023	4:15 AM	5:00 AM	92%	GRR-8125P	SOL	0:45
On	3/2/2023	10:00 AM	11:00 AM	82%	GRR-8126P	SOL	1:00
On	3/3/2023	10:00 AM	12:00 PM	82%	GRR-7071	SOL	2:00
On	3/3/2023	2:00 PM	3:00 PM	80%	GRR-7071	SOL	1:00
On	3/4/2023	9:30 PM	10:30 PM	31%	GRR-7071	SOL	1:00
On	3/6/2023	5:00 PM	6:00 PM	91%	GRR-119	SOL	1:00
On	3/7/2023	12:15 AM	1:00 AM	86%	GRR-113B	SOL	0:45
On	3/7/2023	3:30 AM	4:45 AM	74%	GRR-115B	SOL	1:15
On	3/7/2023	4:00 AM	5:00 AM	81%	GRR-115B	SOL	1:00
On	3/8/2023	9:00 AM	10:00 AM	88%	Perm-8	SOL	1:00
On	3/8/2023	10:00 AM	11:00 AM	81%	Perm-7	SOL	1:00
On	3/8/2023	11:00 AM	12:00 PM	84%	Perm-7	SOL	1:00
On	3/8/2023	12:00 PM	2:00 PM	88%	Perm-6/Perm-8	SOL	2:00
On	3/8/2023	7:30 PM	8:00 PM	47%	Perm-8	SOL	0:30
On	3/8/2023	8:00 PM	8:20 PM	42%	Perm-8	SOL	0:20
On	3/8/2023	8:30 PM	9:15 PM	38%	Perm-8	SOL	0:45
On	3/8/2023	9:30 PM	10:30 PM	55%	Perm-8	SOL	1:00
On	3/9/2023	3:30 AM	4:20 AM	87%	Perm-8	SOL	0:50
On	3/9/2023	4:20 AM	5:15 AM	92%	Perm-8	SOL	0:55
On	3/9/2023	6:00 AM	9:00 AM	84%	GRR-118A	SOL	3:00
On	3/9/2023	9:00 AM	11:00 AM	61%	GRR-118A	SOL	2:00
On	3/10/2023	3:30 AM	4:00 AM	90%	GRR-118A	SOL	0:30
On	3/10/2023	8:00 PM	9:00 PM	47%	GRR-113B	SOL	1:00
On	3/11/2023	1:30 AM	2:15 AM	92%	WT003N	SOL	0:45
On	3/11/2023	2:15 AM	3:00 AM	53%	WT003N	SOL	0:45
On	3/11/2023	3:00 AM	3:30 AM	41%	WT003N	SOL	0:30
On	3/22/2023	12:00 PM	12:30 PM	78%	GRR106	SOL	0:30

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	3/22/2023	1:00 PM	2:00 PM	86%	GRR106	SOL	1:00
On	3/22/2023	8:00 PM	8:45 PM	73%	GRR109	SOL	0:45
On	3/23/2023	1:00 AM	2:00 AM	29%	GRR109	SOL	1:00
On	3/23/2022	2:00 AM	3:00 AM	69%	GRR109	SOL	1:00
On	3/23/2023	3:30 AM	5:00 AM	92%	GRR106	SOL	1:30
On	3/23/2023	8:00 AM	8:30 AM	77%	GRR106	SOL	0:30
On	3/23/2023	9:30 AM	10:30 AM	91%	GRR109	SOL	1:00
On	3/25/2023	2:00 AM	3:00 AM	17%	GRR119	SOL	1:00
On	3/25/2023	3:00 AM	4:00 AM	12%	GRR117	SOL	1:00
On	3/28/2023	6:00 PM	7:00 PM	85%	GRR113B	SOL	1:00
On	3/29/2023	5:00 AM	6:00 AM	94%	GRR115B	SOL	1:00
On	3/29/2023	10:00 AM	11:00 AM	49%	GRR115B	SOL	1:00
On	3/29/2023	12:00 PM	2:00 PM	75%	PERM 7	SOL	2:00
On	3/29/2023	3:00 PM	4:00 PM	39%	500TP2	SOL	1:00
On	3/29/2023	4:00 PM	5:00 PM	80%	500TP2	SOL	1:00
On	3/30/2023	6:00 AM	6:50 AM	92%	500TP2	SOL	0:50
On	3/30/2023	2:00 PM	3:00 PM	90%	WT003N	SOL	1:00
On	3/30/2023	2:00 PM	3:00 PM	90%	GRR81	SOL	1:00
On	3/30/2023	3:00 PM	4:00 PM	85%	WT003N	SOL	1:00
On	3/30/2023	3:00 PM	4:00 PM	85%	GRR81	SOL	1:00
On	3/30/2023	4:00 PM	5:00 PM	88%	WT003N	SOL	1:00
On	3/30/2023	5:00 PM	6:00 PM	80%	GRR81	SOL	1:00
On	3/30/2023	8:00 PM	9:00 PM	91%	GRR118A	SOL	1:00
On	3/31/2023	8:00 PM	9:20 PM	87%	GRR71	SOL	1:20
On	4/3/2023	8:00 AM	8:25 AM	80%	GRR106	SOL	0:25
On	4/3/2023	8:30 AM	9:00 AM	88%	GRR106	SOL	0:30
On	4/3/2023	9:00 AM	10:00 AM	92%	GRR106	SOL	1:00
On	4/4/2023	7:00 AM	9:00 AM	58%	GRR106	SOL	2:00
On	4/4/2023	10:00 AM	11:00 AM	63%	GRR109	SOL	1:00
On	4/4/2023	11:00 AM	12:00 PM	35%	GRR106	SOL	1:00
On	4/4/2023	1:00 PM	2:00 PM	48%	GRR109	SOL	1:00
On	4/4/2023	8:00 PM	9:45 PM	86%	GRR106	SOL	1:45
On	4/4/2023	9:15 PM	11:00 PM	92%	GRR109	SOL	1:45
On	4/5/2023	2:30 AM	3:45 AM	89%	GRR106	SOL	1:15
On	4/5/2023	3:30 AM	5:00 AM	51%	GRR109	SOL	1:30
On	4/5/2023	7:00 AM	8:00 AM	94%	GRR8125P	SOL	1:00
On	4/5/2023	10:00 AM	11:00 AM	91%	GRR8125P	SOL	1:00
On	4/5/2023	11:00 AM	12:00 PM	92%	GRR8126P	SOL	1:00
On	4/5/2023	4:00 PM	5:00 PM	92%	GRR8125P	SOL	1:00
On	4/5/2023	8:30 PM	8:40 PM	83%	GRR109OB	SOL	0:10
On	4/5/2023	8:40 PM	8:50 PM	86%	GRR109OB	SOL	0:10
On	4/6/2023	1:10 AM	2:30 AM	86%	GRR109	SOL	1:20
On	4/6/2023	1:10 AM	2:30 AM	86%	GRR109OB	SOL	1:20
On	4/6/2023	2:30 AM	2:45 AM	77%	GRR109OB	SOL	0:15
On	4/6/2023	2:45 AM	3:00 AM	72%	GRR106OB	SOL	0:15

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	4/6/2023	8:00 AM	9:00 AM	82%	GRR7071	SOL	1:00
On	4/6/2023	9:00 AM	9:20 AM	84%	GRR7071A	SOL	0:20
On	4/6/2023	9:50 AM	11:10 AM	93%	GRR7071	SOL	1:20
On	4/6/2023	11:20 AM	11:30 AM	91%	GRR7071A	SOL	0:10
On	4/6/2023	9:30 PM	10:20 PM	92%	GRR8126P	SOL	0:50
On	4/7/2023	2:15 AM	3:30 AM	67%	GRR8126P	SOL	1:15
On	4/7/2023	8:30 PM	10:40 PM	77%	GRR7071	SOL	2:10
On	4/7/2023	8:30 PM	10:40 PM	77%	GRR7071A	SOL	2:10
On	4/8/2023	2:15 AM	3:00 AM	50%	GRR7071A	SOL	0:45
On	4/8/2023	3:10 AM	3:40 AM	43%	GRR7071A	SOL	0:30
On	4/8/2023	8:30 PM	9:30 PM	16%	GRR119	SOL	1:00
On	4/11/2023	11:00 AM	12:00 PM	72%	GRR119	SOL	1:00
On	4/11/2023	11:30 AM	12:20 PM	58%	GRR115B	SOL	0:50
On	4/11/2023	12:00 PM	1:00 PM	79%	GRR119	SOL	1:00
On	4/12/2023	4:00 PM	5:00 PM	82%	GRR118A	SOL	1:00
On	4/12/2023	11:30 PM	12:15 AM	91%	GRR102	SOL	0:45
On	4/13/2023	2:00 AM	3:30 AM	92%	GRR102	SOL	1:30
On	4/13/2023	2:00 PM	2:20 PM	70%	WT003N	SOL	0:20
On	4/13/2023	9:10 PM	10:10 PM	93%	WT003N	SOL	1:00
On	4/14/2023	12:00 AM	1:00 AM	78%	GRR81	SOL	1:00
On	4/14/2023	12:30 AM	2:00 AM	81%	GRR118A	SOL	1:30
On	4/14/2023	1:00 AM	1:30 AM	80%	GRR81	SOL	0:30
On	4/19/2023	10:00 AM	12:00 PM	90%	PERM8LF	SOL	2:00
On	4/19/2023	12:00 PM	2:00 PM	81%	PERM8LF	SOL	2:00
On	4/19/2023	2:00 PM	4:00 PM	80%	GRR7071	SOL	2:00
On	4/19/2023	7:00 PM	9:00 PM	84%	GRR8126P	SOL	2:00
On	4/19/2023	11:00 PM	1:00 AM	75%	GRR8125P	SOL	2:00
On	4/20/2023	11:00 AM	2:00 PM	73%	GRR7071	SOL	3:00
On	4/21/2023	10:45 AM	11:30 AM	18%	GRR1100B	SOL	0:45
On	4/21/2023	2:30 PM	4:00 PM	21%	GRR1100B	SOL	1:30
On	4/24/2023	10:00 AM	11:00 AM	93%	GRR109	SOL	1:00
On	4/24/2023	12:00 PM	1:00 PM	79%	GRR109	SOL	1:00
On	4/24/2023	12:00 PM	1:00 PM	79%	GRR106	SOL	1:00
On	4/24/2023	2:00 PM	3:00 PM	46%	GRR106	SOL	1:00
On	4/25/2023	6:40 AM	8:00 AM	91%	GRR109	SOL	1:20
On	4/25/2023	8:00 AM	9:00 AM	93%	GRR106	SOL	1:00
On	4/25/2023	9:00 AM	10:00 AM	88%	WT003N	SOL	1:00
On	4/25/2023	10:00 AM	10:40 AM	91%	GRR1060B	SOL	0:40
On	4/25/2023	11:00 AM	11:30 AM	88%	GRR1090B	SOL	0:30
On	4/25/2023	11:00 AM	12:00 PM	93%	WT003N	SOL	1:00
On	4/25/2023	9:30 PM	11:30 PM	87%	GRR106	SOL	2:00
On	4/26/2023	2:30 AM	4:15 AM	84%	GRR106	SOL	1:45
On	4/26/2023	6:00 AM	8:30 AM	91%	050109-2	SOL	2:30
On	4/26/2023	12:00 PM	1:00 PM	89%	050109-2	SOL	1:00
On	4/26/2023	1:00 PM	2:00 PM	62%	073118-1	SOL	1:00

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	4/26/2023	9:00 PM	11:00 PM	92%	GRR106	SOL	2:00
On	4/26/2023	9:00 PM	11:00 PM	92%	GRR106OB	SOL	2:00
On	4/26/2023	11:00 PM	11:30 PM	78%	WN988A	SOL	0:30
On	4/26/2023	11:00 PM	2:00 AM	91%	GRR109	SOL	3:00
On	4/26/2023	11:00 PM	2:00 AM	91%	GRR109OB	SOL	3:00
On	5/4/2023	6:00 AM	7:00 AM	77%	GRR109	SOL	1:00
On	5/4/2023	6:30 AM	7:30 AM	77%	GRR109OB	SOL	1:00
On	5/4/2023	7:00 AM	8:00 AM	78%	GRR106	SOL	1:00
On	5/4/2023	7:30 AM	8:00 AM	79%	GRR106OB	SOL	0:30
On	5/4/2023	11:00 PM	11:30 PM	90%	GRR106OB	SOL	0:30
On	5/5/2023	12:00 AM	12:45 AM	92%	GRR109OB	SOL	0:45
On	5/5/2023	12:00 AM	12:45 AM	92%	GRR109OB	SOL	0:45
On	5/5/2023	1:00 AM	1:30 AM	93%	GRR106	SOL	0:30
On	5/5/2023	1:00 AM	1:30 AM	93%	GRR106OB	SOL	0:30
On	5/5/2023	1:30 AM	2:15 AM	89%	GRR109	SOL	0:45
On	5/5/2023	1:30 AM	2:15 AM	89%	GRR109OB	SOL	0:45
On	5/9/2023	9:00 AM	10:00 AM	86%	091014-01HFFR	SOL	1:00
On	5/9/2023	10:00 AM	1:00 PM	90%	091014-01HFFR	SOL	3:00
On	5/10/2023	8:00 AM	9:00 AM	85%	GRR109	SOL	1:00
On	5/10/2023	11:00 PM	12:30 AM	90%	GRR109	SOL	1:30
On	5/11/2023	10:00 AM	2:00 PM	93%	040308-5	SOL	4:00
On	5/12/2023	1:00 AM	2:20 AM	93%	040308-5	SOL	1:20
On	5/12/2023	5:00 AM	5:30 AM	83%	SF1546A	SOL	0:30
On	5/13/2023	3:10 AM	3:40 AM	81%	GRR81	SOL	0:30
On	5/13/2023	3:04 AM	4:20 AM	81%	GRR81	SOL	1:16
On	5/13/2023	4:30 AM	5:20 AM	81%	GRR81	SOL	0:50
On	5/16/2023	2:00 PM	4:00 PM	85%	GRR8126P	SOL	2:00
On	5/16/2023	5:00 PM	6:00 PM	91%	GRR8125P	SOL	1:00
On	5/16/2023	10:00 PM	1:00 AM	91%	GRR8126P	SOL	3:00
On	5/17/2023	12:30 AM	1:00 AM	90%	GRR7071	SOL	0:30
On	5/18/2023	6:00 PM	8:00 PM	91%	PERM 8	SOL	2:00
On	5/19/2023	7:00 PM	8:00 PM	82%	PERM 8	SOL	1:00
On	5/19/2023	8:00 PM	8:30 PM	82%	WT003N	SOL	0:30
On	5/19/2023	9:00 PM	10:30 PM	81%	PERM 8	SOL	1:30
On	6/13/2023	8:00 AM	8:30 AM	93%	GRR8126P	SOL	0:30
On	6/13/2023	9:00 AM	9:30 AM	91%	GRR8126P	SOL	0:30
On	6/13/2023	9:30 AM	9:50 AM	89%	GRR81	SOL	0:20
On	6/13/2023	9:55 AM	10:15 AM	93%	GRR81	SOL	0:20
On	6/13/2023	10:30 AM	11:00 AM	93%	GRR81	SOL	0:30
On	6/13/2023	12:00 PM	1:00 PM	90%	GRR8126P	SOL	1:00
On	6/14/2023	8:30 AM	10:00 AM	94%	GRR8126P	SOL	1:30
On	6/14/2023	10:00 AM	11:00 AM	89%	GRR81	SOL	1:00
On	6/14/2023	9:30 PM	11:30 PM	91%	GRR8125P	SOL	2:00
On	6/15/2023	12:00 PM	2:00 PM	90%	GRR1100B	SOL	2:00
On	6/15/2023	9:10 PM	10:15 PM	93%	GRR7071	SOL	1:05

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	6/16/2023	7:00 PM	9:00 PM	80%	GRR119	SOL	2:00
On	6/19/2023	4:00 PM	5:00 PM	94%	GRR113B	SOL	1:00
On	6/20/2023	9:00 AM	10:30 AM	87%	WT003N	SOL	1:30
On	6/20/2023	10:30 AM	12:00 PM	86%	WT003N	SOL	1:30
On	6/20/2023	12:00 PM	1:30 PM	90%	WT003N	SOL	1:30
On	6/20/2023	11:15 PM	12:00 AM	93%	060304-8	SOL	0:45
6/30/23 -7/9/23 Whole plant shut down no activity during these dates.							329:12:00
ON	7/11/2023	10:00 AM	11:00 AM	91%	GRR-8125P	SOL	0:45
ON	7/11/2023	1:00 PM	2:00PM	89%	GRR-8126P	SOL	0:45
ON	7/11/2023	10:50PM	12:00AM	85%	GRR-8126P	SOL	0:45
ON	7/11/2023	12:00 AM	12:45AM	89%	GRR-8126P	SOL	0:45
ON	7/11/2023	1:00 AM	3:00 AM	93%	GRR-8126P	SOL	0:45
ON	7/12/2023	9:00 AM	11:30AM	85%	GRR-109	SOL	0:45
ON	7/12/2023	4:30PM	6:30PM	88%	GRR-106	SOL	0:45
ON	7/12/2023	5:00PM	7:00PM	87%	GRR-109	SOL	0:45
ON	7/12/2023	7:00PM	8:30PM	85%	GRR-8125P	SOL	0:45
ON	7/12/2023	8:30PM	10:15PM	91%	GRR-8126P	SOL	0:45
ON	7/12/2023	11:00PM	1:00AM	91%	GRR-109	SOL	0:45
ON	7/12/2023	1:00AM	3:00AM	94%	GRR-106	SOL	0:45
ON	7/13/2023	8:00 AM	10:00 AM	88%	GRR-7071	SOL	0:45
7/14/23 -7/16/23 Whole plant shut down no activity during these dates.						SOL	0:45
ON	7/19/2023	3:30AM	5:00 AM	94%	GRR-8126P	SOL	0:45
ON	7/19/2023	6:15PM	8:00 PM	94%	GRR-8125P	SOL	0:45
ON	7/19/2023	8:00PM	9:30PM	94%	GRR-8126P	SOL	0:45
ON	7/20/2023	12:30 AM	2:00 AM	89%	GRR-8125P	SOL	0:45
ON	7/20/2023	8:00 AM	9:00 AM	83%	GRR-109OB	SOL	0:45
ON	7/20/2023	9:00 AM	9:30 AM	88%	GRR-106	SOL	0:45
ON	7/20/2023	3:00PM	4:00PM	94%	GRR-7071A	SOL	0:45
ON	7/20/2023	5:00PM	6:30 PM	93%	GRR-7071A	SOL	0:45
ON	7/20/2023	4:00PM	5:00PM	93%	GRR-7071A	SOL	0:45
ON	7/20/2023	7:30PM	9:30 PM	91%	GRR-109OB	SOL	0:45
ON	7/20/2023	9:30PM	12:30 AM	86%	GRR-109OB	SOL	0:45
ON	7/20/2023	12:30 AM	3:00 AM	94%	GRR-109OB	SOL	0:45
ON	7/21/2023	9:30PM	10:30 PM	84%	GRR-119	SOL	0:45
ON	7/22/2023	5:00 AM	5:30 AM	79%	GRR-7071A	SOL	0:45
ON	7/24/2023	7:30 AM	7:45 AM	92%	GRR-113B	SOL	0:45
ON	7/24/2023	7:45 AM	8:45 AM	88%	GRR-115B	SOL	0:45
ON	7/24/2023	9:30 AM	10:00 AM	87%	GRR-113B	SOL	0:45
ON	7/24/2023	2:30 PM	3:45PM	89%	GRR-7071	SOL	0:45
ON	7/25/2023	6:00 AM	7:30 AM	80%	GRR-119	SOL	0:45
ON	7/25/2023	8:00 AM	9:45 AM	94%	GRR-117	SOL	0:45
ON	7/25/2023	11:00 AM	1:00PM	91%	GRR-115B	SOL	0:45
ON	7/25/2023	3:50PM	5:30PM	87%	GRR-115B	SOL	0:45
ON	7/26/2023	10:00 AM	1:00PM	92%	GRR-118A	SOL	0:45

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
ON	7/26/2023	9:50PM	11:45PM	94%	GRR-113B	SOL	0:45
ON	7/27/2023	2:20 AM	3:00 AM	93%	GRR-118A	SOL	0:45
ON	8/1/2023	7:30PM	9:00 PM	86%	GRR-8126P	SOL	0:45
ON	8/1/2023	9:00PM	9:30PM	89%	GRR-8125P	SOL	0:45
ON	8/1/2023	11:00PM	1:30AM	84%	GRR-8125P	SOL	0:45
ON	8/1/2023	1:30 AM	3:00 AM	87%	GRR-8126P	SOL	0:45
ON	8/1/2023	3:00 AM	4:30 AM	86%	GRR-8126P	SOL	0:45
ON	8/1/2023	7:00 AM	7:45AM	84%	GRR-81	SOL	0:45
ON	8/1/2023	8:00 AM	11:00 AM	89%	GRR-8125	SOL	0:45
ON	8/1/2023	12:00PM	3:00PM	89%	GRR-8126	SOL	0:45
ON	8/1/2023	6:30PM	7:45PM	87%	GRR-8125	SOL	0:45
ON	8/1/2023	7:45PM	8:35PM	85%	GRR-81	SOL	0:45
ON	8/1/2023	8:35PM	9:45PM	89%	GRR-8126	SOL	0:45
ON	8/2/2023	10:00PM	12:00 AM	87%	060513-1HF FR	SOL	0:45
ON	8/2/2023	12:00 AM	2:00 AM	88%	060513-1HF FR	SOL	0:45
ON	8/2/2023	6:55 AM	8:50 AM	88%	060513-1HF FR	SOL	0:45
ON	8/2/2023	8:55 AM	10:30 AM	89%	060513-1HF FR	SOL	0:45
ON	8/2/2023	3:50 PM	4:20 PM	85%	GRR 71	SOL	0:45
ON	8/2/2023	8:00 PM	9:20 PM	87%	GRR-7071	SOL	0:45
ON	8/2/2023	9:20 PM	9:30 PM	88%	GRR-7071A	SOL	0:45
ON	8/2/2023	9:30 PM	10:50 PM	87%	GRR-7071	SOL	0:45
ON	8/2/2023	10:50 PM	11:00 PM	86%	GRR-7071A	SOL	0:45
ON	8/2/2023	11:00 PM	12:20 AM	88%	GRR-7071	SOL	0:45
ON	8/2/2023	12:20 AM	12:30 AM	86%	GRR-7071A	SOL	0:45
ON	8/3/2023	10:30PM	11:20 PM	89%	GRR-7071	SOL	0:45
ON	8/3/2023	11:20 PM	11:30 PM	89%	GRR-7071A	SOL	0:45
ON	8/9/2023	10:00PM	11:00PM	87%	GRR-81	SOL	0:45
ON	8/10/2023	11:00 PM	12:00 AM	86%	GRR-81	SOL	0:45
ON	8/10/2023	12:00 AM	1:00 AM	88%	WT003N	SOL	0:45
ON	8/14/2023	11:00 AM	11:45 AM	90%	GRR-8126	SOL	0:45
ON	8/14/2023	12:00PM	1:00PM	88%	GRR-8125	SOL	0:45
ON	8/14/2023	2:00 PM	3:00 PM	88%	GRR-8125	SOL	0:45
ON	8/14/2023	1:00PM	2:00PM	87%	GRR-8126	SOL	0:45
ON	8/14/2023	8:00PM	9:00PM	89%	GRR-8126	SOL	0:45
ON	8/14/2023	9:00PM	9:45PM	88%	GRR-8125	SOL	0:45
ON	8/14/2023	9:45PM	10:15PM	88%	GRR-8126	SOL	0:45
ON	8/15/2023	5:30 AM	7:30 AM	86%	GRR-109	SOL	0:45
ON	8/15/2023	7:30 AM	9:00 AM	87%	GRR-109OB	SOL	0:45
ON	8/15/2023	12:00 PM	12:30 PM	94%	GRR-106OB	SOL	0:45
ON	8/15/2023	6:30PM	7:00PM	93%	GRR-109OB	SOL	0:45
ON	8/15/2023	7:30PM	7:45PM	93%	GRR-106OB	SOL	0:45
ON	8/15/2023	7:45PM	8:30PM	93%	GRR-109	SOL	0:45
ON	8/15/2023	7:45PM	8:30PM	93%	GRR-109OB	SOL	0:45
ON	8/15/2023	9:00PM	10:00PM	93%	PERM7	SOL	0:45
ON	8/15/2023	10:00PM	11:00PM	91%	605-PU-6	SOL	0:45

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
ON	8/16/2023	10:00 AM	12:00 PM	89%	GRR-7071	SOL	0:45
ON	8/16/2023	12:00 PM	2:00 PM	89%	GRR-7071	SOL	0:45
ON	8/16/2023	2:00 PM	4:00 PM	91%	GRR-7071	SOL	0:45
ON	8/17/2023	7:30 PM	8:15PM	89%	GRR-81	SOL	0:45
ON	8/22/2023	5:00 AM	7:00 AM	93%	GRR8125	SOL	0:45
ON	8/22/2023	6:30 PM	7:45 PM	90%	GRR8125	SOL	0:45
ON	8/23/2023	6:00 AM	7:30 AM	93%	091014-HFFR	SOL	0:45
ON	8/23/2023	7:45 PM	8:45 PM	86%	GRR8126	SOL	0:45
ON	8/23/2023	8:00 PM	9:00 PM	80%	GRR8126	SOL	0:45
ON	8/23/2023	9:00 PM	9:35 PM	80%	GRR7071/A	SOL	0:45
ON	8/23/2023	10:30 PM	11:00PM	90%	WT003N	SOL	0:45
ON	8/23/2023	11:00 PM	12:00 AM	93%	WT003N	SOL	0:45
ON	8/24/2025	12:00 AM	12:30 AM	94%	GRR81	SOL	0:45
ON	8/24/2023	12:30 AM	1:30 AM	93%	GRR81	SOL	0:45
ON	8/24/2023	8:00 AM	9:00 AM	93%	GRR7071A	SOL	0:45
ON	8/24/2023	11:00 AM	12:00 PM	90%	TH234	SOL	0:45
ON	8/24/2023	3:00 PM	4:00 PM	89%	GRR7071A	SOL	0:45
ON	8/28/2023	1:00 PM	2:30 PM	92%	GRR8125	SOL	0:45
ON	8/28/2023	8:45 PM	9:30 PM	85%	GRR8126	SOL	0:45
ON	8/29/2023	1:30 AM	2:30 AM	86%	GRR8125	SOL	0:45
ON	8/29/2023	2:45 AM	3:15 AM	90%	GRR8126	SOL	0:45
ON	8/29/2023	8:15 AM	8:45 AM	92%	02008-7	SOL	0:45
ON	8/29/2023	9:00 AM	9:30 AM	89%	02286-2	SOL	0:45
ON	8/29/2023	9:30 AM	10:00 AM	89%	02286-2OB	SOL	0:45
ON	8/29/2023	11:00 AM	11:30 AM	85%	02286-2	SOL	0:45
ON	8/29/2023	11:30 AM	11:45 AM	84%	02286-2OB	SOL	0:45
ON	8/29/2023	12:00PM	1:00PM	84%	02008-7	SOL	0:45
ON	8/29/2023	1:00PM	2:00PM	85%	02008-7OB	SOL	0:45
ON	8/29/2023	2:00PM	3:30PM	91%	02008-7	SOL	0:45
ON	8/29/2023	3:30PM	5:00PM	89%	02008-7OB	SOL	0:45
ON	8/30/2023	11:00 AM	11:30 AM	66%	GRR-107	SOL	0:45
ON	8/30/2023	4:55PM	5:25PM	94%	WT003N	SOL	0:45
ON	8/30/2023	3:00 PM	4:00PM	88%	GRR-106	SOL	0:45
ON	8/30/2023	5:05PM	5:45PM	92%	GRR-109	SOL	0:45
ON	8/30/2023	9:00PM	10:30PM	80%	GRR-106	SOL	0:45
ON	8/30/2023	10:30PM	11:40PM	83%	GRR-109	SOL	0:45
ON	8/31/2023	2:25 AM	2:40 AM	89%	GRR-106	SOL	0:45
ON	8/31/2023	2:45 AM	3:00 AM	90%	GRR-109	SOL	0:45
ON	8/31/2023	6:00 AM	7:00 AM	72%	WT003N	SOL	0:45
ON	8/31/2023	7:00 AM	10:00 AM	80%	GRR-106	SOL	0:45
ON	8/31/2023	10:00 AM	12:00 PM	92%	GRR-109	SOL	0:45
ON	8/31/2023	7:00PM	7:15PM	53%	GRR-113B	SOL	0:45
ON	9/5/2023	12:30PM	1:30PM	65%	GRR-119	SOL	0:45
ON	9/6/2023	8:00 AM	8:30 AM	94%	GRR115B	SOL	0:45
ON	9/6/2023	4:00PM	4:30PM	62%	GRR115B	SOL	0:45



Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
ON	9/6/2023	4:30PM	5:30PM	70%	GRR81 DISP	SOL	0:45
ON	9/6/2023	7:30PM	9:00PM	54%	GRR-133B	SOL	0:45
ON	9/6/2023	9:00PM	9:30PM	30%	GRR-113B	SOL	0:45
ON	9/6/2023	9:30PM	10:30PM	51%	GRR-115B	SOL	0:45
ON	9/7/2023	5:15 AM	6:30AM	92%	GRR-8126B	SOL	0:45
ON	9/7/2023	7:00 AM	8:00 AM	87%	GRR-8125	SOL	0:45
ON	9/7/2023	10:30AM	11:30AM	88%	GRR-8125B	SOL	0:45
ON	9/7/2023	3:30PM	5:00PM	90%	GRR-8126B	SOL	0:45
ON	9/7/2023	11:00PM	12:00PM	75%	120A	SOL	0:45
ON	9/7/2023	12:00PM	12:45PM	82%	115A	SOL	0:45
ON	9/7/2023	11:30PM	12:45AM	75%	118A	SOL	0:45
ON	9/8/2023	6:00PM	7:00PM	90%	GRR7071	SOL	0:45
ON	9/9/2023	3:30AM	4:00 AM	61%	GRR7071	SOL	0:45
ON	9/9/2023	10:00 AM	11:00 AM	25%	GRR-118A	SOL	0:45
ON	9/9/2023	12:30PM	1:20PM	12%	GRR-118A	SOL	0:45
ON	9/9/2023	3:00PM	4:00PM	0%	GRR-7071	SOL	0:45
ON	9/11/2023	3:00 PM	5:30PM	79%	GRR-8125P	SOL	0:45
ON	9/11/2023	5:00PM	6:30PM	90%	GRR-8126P	SOL	0:45
ON	9/11/2023	11:00PM	11:40PM	79%	GRR-8125P	SOL	0:45
ON	9/12/2023	11:40PM	12:45 AM	89%	GRR-8126P	SOL	0:45
ON	9/12/2023	4:05 AM	4:40 AM	89%	GRR-8126P	SOL	0:45
ON	9/12/2023	4:45 AM	5:15 AM	89%	GRR-8125P	SOL	0:45
ON	9/12/2023	8:00 AM	9:45 AM	76%	GRR-8125P	SOL	0:45
ON	9/12/2023	7:05 PM	7:35 PM	86%	GRR-8126P	SOL	0:45
ON	9/12/2023	7:35 PM	8:05 PM	89%	GRR-8125P	SOL	0:45
ON	9/12/2023	10:25 PM	10:50 PM	89%	GRR-8126P	SOL	0:45
ON	9/12/2023	10:50 PM	11:10 PM	94%	GRR-8125P	SOL	0:45
ON	9/12/2023	11:15 PM	11:45 PM	94%	GRR-8126P	SOL	0:45
ON	9/13/2023	8:00 AM	8:55 AM	90%	GRR-8125P	SOL	0:45
ON	9/13/2023	10:00 AM	10:45 AM	50%	GRR-8126P	SOL	0:45
ON	9/13/2023	7:05 PM	7:35PM	75%	GRR-8126P	SOL	0:45
ON	9/13/2023	7:35PM	8:05PM	77%	GRR-8125P	SOL	0:45
ON	9/13/2023	10:25PM	10:50PM	54%	GRR-8126P	SOL	0:45
ON	9/13/2023	10:50PM	11:10PM	52%	GRR-8125P	SOL	0:45
ON	9/13/2023	11:15PM	11:45PM	69%	GRR-8126P	SOL	0:45
ON	9/14/2023	4:45 AM	5:20 AM	94%	GRR-8126P	SOL	0:45
ON	9/14/2023	7:00 AM	8:00 AM	92%	GRR-106	SOL	0:45
ON	9/14/2023	9:00 AM	9:30 AM	82%	GRR-109	SOL	0:45
ON	9/14/2023	9:30 AM	10:00 AM	86%	GRR-109OB	SOL	0:45
ON	9/14/2023	11:00 AM	11:30 AM	64%	GRR-106OB	SOL	0:45
ON	9/14/2023	1:45PM	3:00PM	67%	GRR-106	SOL	0:45
ON	9/14/2023	3:00PM	3:30PM	83%	GRR-106OB	SOL	0:45
ON	9/14/2023	5:15PM	6:00PM	76%	GRR-109	SOL	0:45
ON	9/14/2023	6:00PM	6:30PM	68%	GRR-109OB	SOL	0:45
ON	9/14/2023	8:30PM	9:15PM	84%	GRR-109	SOL	0:45

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
ON	9/14/2023	8:30PM	9:15PM	84%	GRR-109OB	SOL	0:45
ON	9/14/2023	8:00PM	8:30PM	88%	GRR-106OB	SOL	0:45
ON	9/14/2023	9:20PM	9:30PM	87%	GRR-106OB	SOL	0:45
ON	9/14/2023	9:35PM	9:50PM	87%	GRR-109OB	SOL	0:45
ON	9/15/2023	8:00 AM	8:55AM	83%	GRR-71	SOL	0:45
ON	9/15/2023	3:00PM	3:55PM	84%	GRR-7071A	SOL	0:45
ON	9/15/2023	3:00PM	4:30PM	87%	GRR-7071	SOL	0:45
ON	9/15/2023	10:30PM	11:00PM	70%	GRR-7071	SOL	0:45
ON	9/15/2023	10:30PM	11:00PM	70%	GRR-7071A	SOL	0:45
ON	9/16/2023	3:00AM	3:45AM	59%	GRR-7071	SOL	0:45
ON	9/16/2023	3:00 AM	3:45 AM	59%	GRR-7071A	SOL	0:45
ON	9/16/2023	5:10 AM	5:40 AM	42%	GRR-7071	SOL	0:45
ON	9/16/2023	5:10AM	5:40AM	42%	GRR-7071A	SOL	0:45
ON	9/16/2023	8:00PM	8:30PM	30%	GRR-7071	SOL	0:45
ON	9/19/2023	3:45 AM	4:05 AM	74%	040308-5	SOL	0:45
ON	9/19/2023	4:20 AM	4:45 AM	78%	SN975A	SOL	0:45
ON	9/19/2023	4:45 AM	5:15 AM	78%	SN975A	SOL	0:45
ON	9/19/2023	9:00 AM	12:30PM	76%	040308-5	SOL	0:45
ON	9/19/2023	3:55PM	4:30PM	83%	040308S	SOL	0:45
ON	9/19/2023	6:15PM	7:00PM	90%	SN-975A	SOL	0:45
ON	9/19/2023	7:00PM	8:10PM	71%	MASK WHITE	SOL	0:45
ON	9/20/2023	2:30 AM	3:00 AM	83%	GRR-8126P	SOL	0:45
ON	9/20/2023	3:00 AM	3:30 AM	81%	GRR-8125P	SOL	0:45
ON	9/20/2023	6:00 AM	7:30 AM	90%	GRR-8126P	SOL	0:45
ON	9/20/2023	7:45 AM	8:20 AM	90%	GRR-8125P	SOL	0:45
ON	9/20/2023	12:30PM	1:15PM	94%	GRR-8126P	SOL	0:45
ON	9/20/2023	1:30PM	2:00PM	91%	GRR-8125P	SOL	0:45
ON	9/20/2023	3:00PM	4:15PM	91%	GRR-8126P	SOL	0:45
ON	9/20/2023	7:30PM	8:00PM	93%	GRR-8125P	SOL	0:45
ON	9/20/2023	8:15PM	8:45PM	71%	GRR-8126P	SOL	0:45
ON	9/20/2023	9:30PM	10:00PM	45%	GRR-7071	SOL	0:45
ON	9/20/2023	11:15PM	12:00AM	80%	GRR-7071	SOL	0:45
ON	9/21/2023	6:30 AM	7:45 AM	74%	WT003N	SOL	0:45
ON	9/21/2023	8:00 AM	9:15AM	78%	WT003N	SOL	0:45
ON	9/21/2023	7:30PM	8:00PM	57%	GRR-8125P	SOL	0:45
ON	9/21/2023	8:15PM	8:45PM	73%	GRR-8126P	SOL	0:45
ON	9/21/2023	9:30PM	10:00PM	22%	GRR-7071	SOL	0:45
ON	9/21/2023	11:15PM	12:00 AM	58%	GRR-7071	SOL	0:45
ON	9/25/2023	6:30 AM	7:30 AM	90%	91354N	SOL	0:45
ON	9/25/2023	8:30 AM	9:30 AM	91%	91354N	SOL	0:45
ON	9/25/2023	2:30PM	3:30PM	87%	GRR-109	SOL	0:45
ON	9/25/2023	3:00PM	4:00PM	87%	GRR-106	SOL	0:45
ON	9/25/2023	7:25PM	8:15PM	87%	GRR-109	SOL	0:45
ON	9/25/2023	8:15PM	8:45PM	82%	GRR-106	SOL	0:45
ON	9/26/2023	11:45 PM	12:05AM	84%	GRR-106	SOL	0:45

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
ON	9/25/2023	11:20PM	11:45PM	85%	GRR-109	SOL	0:45
ON	9/26/2023	2:30 AM	3:20 AM	79%	GRR-106	SOL	0:45
ON	9/26/2023	11:00 AM	1:00PM	88%	GRR-106	SOL	0:45
ON	9/26/2023	1:00PM	3:00PM	87%	GRR-109	SOL	0:45
ON	9/26/2023	3:00PM	5:00PM	78%	GRR-106	SOL	0:45
ON	9/26/2023	6:15PM	6:45PM	91%	GRR-109	SOL	0:45
ON	9/26/2023	6:45PM	7:15PM	90%	GRR-107	SOL	0:45
ON	9/26/2023	8:20PM	9:15PM	76%	GRR-106	SOL	0:45
ON	9/26/2023	8:20PM	9:15PM	76%	GRR-107	SOL	0:45
ON	9/26/2023	7:30PM	8:20PM	66%	GRR-106	SOL	0:45
ON	9/26/2023	7:30PM	8:20PM	66%	GRR-107	SOL	0:45
ON	9/27/2023	5:00 AM	6:00 AM	88%	PERM7	SOL	0:45
ON	9/27/2023	6:00 AM	7:10 AM	93%	PERM7	SOL	0:45
ON	9/27/2023	9:00 AM	9:55 AM	59%	PERM7	SOL	0:45
ON	9/27/2023	10:00 AM	11:50 AM	84%	500TP2	SOL	0:45
ON	9/27/2023	3:00PM	5:00PM	83%	500TP2	SOL	0:45
ON	9/27/2023	5:00PM	6:00PM	30%	PERM7	SOL	0:45
ON	9/28/2023	11:30 PM	1:00 AM	78%	73118-DK B/C	SOL	0:45
ON	9/28/2023	1:10 AM	2:00 AM	74%	050109-DK T/C	SOL	0:45
ON	9/28/2023	6:30 AM	11:45AM	80%	94409A	SOL	0:45

836:09:00

# EGLE

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
AIR QUALITY DIVISION

## RENEWABLE OPERATING PERMIT REPORT CERTIFICATION

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating Permit (ROP) program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(ii), and be made available to the Department of Environment, Great Lakes, and Energy, Air Quality Division upon request.

Source Name Worthen Coated Fabrics County Kent  
Source Address 1125 41<sup>st</sup> Street SE City Grand Rapids  
AQD Source ID (SRN) P0634 ROP No. MI-ROP-P0634-2023 ROP Section No. NA

Please check the appropriate box(es):

Annual Compliance Certification (Pursuant to Rule 213(4)(c))

Reporting period (provide inclusive dates): From \_\_\_\_\_ To \_\_\_\_\_

1. During the entire reporting period, this source was in compliance with ALL terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the ROP.
2. During the entire reporting period this source was in compliance with all terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference, EXCEPT for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the ROP, unless otherwise indicated and described on the enclosed deviation report(s).

Semi-Annual (or More Frequent) Report Certification (Pursuant to Rule 213(3)(c))

Reporting period (provide inclusive dates): From 01/01/2023 To 06/30/2023

1. During the entire reporting period, ALL monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred.
2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred, EXCEPT for the deviations identified on the enclosed deviation report(s).  
**WORTHEN IS SUBMITTING A REVISION TO THE DEVIATION REPORT THAT WAS PREVIOUSLY SUBMITTED FOR THIS TIME PERIOD.**

Other Report Certification

Reporting period (provide inclusive dates): From \_\_\_\_\_ To \_\_\_\_\_  
Additional monitoring reports or other applicable documents required by the ROP are attached as described:

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete

David Gill Corporate EHS Manager 603-821-5924  
Name of Responsible Official (print or type) Title Phone Number

[Signature]  
Signature of Responsible Official

11/16/23  
Date



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
AIR QUALITY DIVISION

**RENEWABLE OPERATING PERMIT  
DEVIATION REPORT**

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

This form may be submitted in conjunction with the Renewable Operating Permit Report Certification form (EQP 5736) to report deviations from all general conditions and special conditions in the Renewable Operating Permit (ROP) for which deviations required to be reported by R 336.1213 (Rule 213) subrule (3)(c) have occurred. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(ii), and be made available to the Department of Environment, Great Lakes, and Energy, Air Quality Division, upon request. Items 1 - 8 must be completed for all deviations being reported.

Source Name Worthen Coated Fabrics County Kent

Source Address 1125 41<sup>st</sup> Street SE City Grand Rapids

AQD Source ID (SRN) P0634 ROP No. MI-ROP-P0634-2023 ROP Section No. NA

ROP Section Contact NA Contact Phone No. NA

Reporting Period (provide inclusive dates): From 01/01/2023 to 06/30/2023

Report Type:  Annual  Semi Annual  Other (Describe) Revision to Semi-annual Report submitted on July 27, 2023

1. Group or Source Wide ID FG-NSPS-VWV	2. Condition No. III.2	3. Date(s) of Occurrence See attached table for summary of occurrences	4. Previously reported? <input checked="" type="checkbox"/> Yes and <input checked="" type="checkbox"/> No Some of the deviations were reported in the report submitted on 7/27	5. Duration of Deviation 329 hours 12 minutes
6. Method Used to Determine Compliance Status (if different from method specified in ROP) NA		7. Description of Deviation The carbon adsorption system did not achieve 95% control efficiency for periods of time on the dates identified in the attached table.		
8. Reason for Deviation and Description of Corrective Action Taken Corrective actions taken to date include calibrating the system, operating the carbon bed fan continuously during all manufacturing hours, and changing out the carbon filters more frequently. Worthen is in the process of evaluating a new system that would allow for longer contact time between vapors and filter media.				

1. Group or Source Wide ID EU-FabricCoating	2. Condition No. III.4	3. Date(s) of Occurrence See attached table for summary of occurrences (initial report did not include all occurrences).	4. Previously reported ? <input checked="" type="checkbox"/> Yes and <input checked="" type="checkbox"/> No 5/10-11 occurrences were reported in report submitted on 7/27	5. Duration of Deviation See attached table
6. Method Used to Determine Compliance Status (if different from method specified in ROP) NA		7. Description of Deviation PTE negative pressure drop was not maintained at 0.007" wc or greater on an hourly average basis for periods of time on May 10 and 11. The computer system and pressure transducer were not operating properly, requiring maintenance. For other deviations, PTE door was open.		
8. Reason for Deviation and Description of Corrective Action Taken Faulty pressure transducer was identified on May 9 <sup>th</sup> and was replaced on May 11 <sup>th</sup> . Misunderstanding of ROP requirements for when the PTE doors are required to be closed and PTE operating under negative pressure. Worthen now understands that PTE must operate during all coating line operations including water-based coating and heat setting. In addition to training the operators, Worthen has posted neon green signs at all PTE doors stating that doors must be kept shut and under negative pressure during all times coating line is operating.				

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	1/4/2023	3:00 AM	4:00 AM	87%	060304-7 RW	SOL	1:00
On	1/5/2023	10:00 AM	11:00 AM	91%	040308-5	SOL	1:00
On	1/6/2023	9:00 PM	9:20 PM	68%	SF-1546A	SOL	0:20
On	1/6/2023	9:20 PM	9:40 PM	37%	SF-1546A	SOL	0:20
On	1/9/2023	12:00 PM	12:35 PM	82%	GRR-8126P	SOL	0:35
On	1/9/2023	1:00 PM	1:45 PM	85%	GRR-8125P	SOL	0:45
On	1/9/2023	3:50 PM	4:31 PM	90%	GRR-8126P	SOL	0:41
On	1/10/2023	4:30 PM	7:00 PM	86%	GRR-106	SOL	2:30
On	1/10/2023	6:15 PM	6:45 PM	87%	GRR-8125P	SOL	0:30
On	1/10/2023	7:00 PM	7:20 PM	91%	GRR-106OB	SOL	0:20
On	1/11/2023	8:00 AM	9:30 AM	68%	GRR-106	SOL	1:30
On	1/11/2023	9:50 AM	11:10 AM	81%	GRR-106OB	SOL	1:20
On	1/11/2023	11:20 AM	12:30 PM	80%	GRR-109	SOL	1:10
On	1/11/2023	12:50 PM	2:00 PM	86%	GRR-109OB	SOL	1:10
On	1/11/2023	3:00 PM	5:20 PM	80%	GRR-106	SOL	2:20
On	1/11/2023	4:10 PM	5:30 PM	72%	GRR-109OB	SOL	1:20
On	1/11/2023	7:30 PM	7:40 PM	83%	GRR-106OB	SOL	0:10
On	1/11/2023	7:40 PM	8:00 PM	58%	GRR-109OB	SOL	0:20
On	1/12/2023	3:15 AM	4:30 AM	68%	GRR-109	SOL	1:15
On	1/12/2023	3:15 AM	4:30 AM	68%	GRR-109OB	SOL	1:15
On	1/12/2023	6:00 AM	7:05 AM	88%	073118-1 DK TAN B/C	SOL	1:05
On	1/12/2023	6:00 PM	7:00 PM	88%	WT003N	SOL	1:00
On	1/12/2023	6:45 PM	8:00 PM	84%	GRR-109	SOL	1:15
On	1/12/2023	6:45 PM	8:00 PM	84%	GRR-109OB	SOL	1:15
On	1/12/2023	10:00 PM	11:20 PM	82%	050109-2 DK TAN T/C	SOL	1:20
On	1/13/2023	1:00 AM	2:45 AM	77%	050109-2 DK TAN T/C	SOL	1:45
On	1/13/2023	2:45 AM	4:00 AM	83%	073118-1 DK TAN B/C	SOL	1:15
On	1/13/2023	9:00 AM	10:00 AM	68%	GRR-110OB	SOL	1:00
On	1/13/2023	9:00 PM	9:45 PM	82%	WT003N	SOL	0:45
On	1/13/2023	9:45 PM	10:40 PM	57%	WT003N	SOL	0:55
On	1/13/2023	11:00 PM	12:30 AM	93%	GRR-7071	SOL	1:30
On	1/14/2023	3:20 AM	3:40 AM	71%	GRR-110OB	SOL	0:20
On	1/14/2023	4:00 AM	4:30 AM	23%	GRR-110OB	SOL	0:30
On	1/18/2023	7:00 AM	7:45 AM	93%	WT003N	SOL	0:45
On	1/18/2023	7:30 AM	8:50 AM	75%	02286-2	SOL	1:20
On	1/18/2023	1:45 PM	3:00 PM	94%	02286-2	SOL	1:15
On	1/18/2023	7:30 PM	7:45 PM	74%	02008-7OB	SOL	0:15
On	1/18/2023	7:45 PM	8:00 PM	71%	02008-7OB	SOL	0:15
On	1/18/2023	8:00 PM	8:20 PM	71%	02008-7OB	SOL	0:20
On	1/18/2023	8:20 PM	8:40 PM	79%	02286-2	SOL	0:20
On	1/18/2023	8:20 PM	8:40 PM	79%	02286-2OB	SOL	0:20
On	1/18/2023	8:40 PM	9:00 PM	73%	02286-2	SOL	0:20
On	1/18/2023	8:40 PM	9:00 PM	73%	02286-2OB	SOL	0:20
On	1/18/2023	9:00 PM	9:30 PM	73%	02286-2	SOL	0:30
On	1/18/2023	9:00 PM	9:30 PM	73%	02286-2OB	SOL	0:30

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	1/19/2023	4:10 AM	4:45 AM	81%	WT003N	SOL	0:35
On	1/19/2023	8:00 AM	10:00 AM	81%	GRR-106	SOL	2:00
On	1/19/2023	10:00 AM	10:10 AM	74%	GRR-106OB	SOL	0:10
On	1/19/2023	5:00 PM	6:00 PM	83%	GRR-106	SOL	1:00
On	1/19/2023	6:00 PM	6:10 PM	87%	GRR-106OB	SOL	0:10
On	1/19/2023	8:15 PM	8:40 PM	61%	GRR-106	SOL	0:25
On	1/19/2023	8:15 PM	8:40 PM	61%	GRR-106OB	SOL	0:25
On	1/19/2023	8:40 PM	9:10 PM	74%	GRR-109OB	SOL	0:30
On	1/19/2023	9:20 PM	10:00 PM	69%	GRR-109	SOL	0:40
On	1/19/2023	9:20 PM	10:00 PM	69%	GRR-109OB	SOL	0:40
On	1/20/2023	7:00 AM	9:00 AM	93%	GRR-106	SOL	2:00
On	1/20/2023	9:00 AM	9:10 AM	71%	GRR-106OB	SOL	0:10
On	1/20/2023	10:00 AM	11:00 AM	91%	GRR-109	SOL	1:00
On	1/20/2023	10:40 AM	11:00 AM	93%	GRR-106OB	SOL	0:20
On	1/20/2023	12:00 PM	1:00 PM	91%	GRR-109	SOL	1:00
On	1/20/2023	1:00 PM	1:10 PM	86%	GRR-109OB	SOL	0:10
On	1/20/2023	2:00 PM	2:30 PM	87%	GRR-106OB	SOL	0:30
On	1/20/2023	7:00 PM	8:00 PM	88%	GRR-106	SOL	1:00
On	1/20/2023	7:00 PM	8:00 PM	88%	GRR-106OB	SOL	1:00
On	1/20/2023	7:30 PM	8:30 PM	85%	GRR-106	SOL	1:00
On	1/20/2023	7:30 PM	8:30 PM	85%	GRR-106OB	SOL	1:00
On	1/20/2023	8:00 PM	9:30 PM	86%	GRR-109	SOL	1:30
On	1/20/2023	8:00 PM	9:30 PM	86%	GRR-109OB	SOL	1:30
On	1/23/2023	12:00 PM	12:45 PM	87%	WT003N	SOL	0:45
On	1/23/2023	3:00 PM	3:45 PM	92%	WT003N	SOL	0:45
On	1/25/2023	7:00 PM	7:30 PM	86%	GRR-109	SOL	0:30
On	1/25/2023	7:30 PM	8:00 PM	85%	GRR-109	SOL	0:30
On	1/25/2023	8:00 PM	8:30 PM	85%	GRR-106	SOL	0:30
On	1/25/2023	8:00 PM	8:30 PM	85%	GRR-104	SOL	0:30
On	1/25/2023	8:30 PM	9:00 PM	94%	GRR-106	SOL	0:30
On	1/25/2023	8:30 PM	9:00 PM	94%	GRR-104	SOL	0:30
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-106	SOL	1:15
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-104	SOL	1:15
On	1/26/2023	3:45 AM	5:00 AM	90%	GRR-109	SOL	1:15
On	1/27/2023	8:00 AM	9:00 AM	92%	Perm-8	SOL	1:00
On	1/27/2023	7:00 PM	8:20 PM	87%	GRR-109	SOL	1:20
On	1/27/2023	11:00 PM	1:00 AM	92%	GRR-109	SOL	2:00
On	1/28/2023	12:30 AM	2:00 AM	92%	GRR-106	SOL	1:30
On	1/28/2023	6:30 PM	7:00 PM	74%	Perm-7	SOL	0:30
On	1/28/2023	7:00 PM	7:25 PM	75%	Perm-7	SOL	0:25
On	1/28/2023	7:45 PM	8:10 PM	74%	605-PW	SOL	0:25
On	1/28/2023	8:10 PM	8:30 PM	74%	605-PW	SOL	0:20
On	1/28/2023	10:30 PM	11:00 PM	74%	605-PW	SOL	0:30
On	1/29/2023	12:00 AM	1:30 AM	73%	Perm-7	SOL	1:30
On	2/1/2023	1:39 PM	2:05 PM	93%	GRR-8125P	SOL	0:26



Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	2/2/2023	2:00 AM	2:30 AM	91%	GRR-8125P	SOL	0:30
On	2/3/2023	10:00 AM	11:00 AM	92%	GRR-7071	SOL	1:00
On	2/4/2023	2:00 AM	2:30 AM	91%	GRR-7071	SOL	0:30
On	2/4/2023	2:30 AM	3:00 AM	79%	GRR-7071	SOL	0:30
On	2/9/2023	12:00 PM	1:00 PM	79%	GRR-81	SOL	1:00
On	2/10/2023	11:30 PM	12:45 AM	91%	WT003N	SOL	1:15
On	2/13/2023	7:00 PM	7:30 PM	68%	GRR-8125P	SOL	0:30
On	2/13/2023	7:30 PM	8:00 PM	85%	GRR-8125P	SOL	0:30
On	2/13/2023	7:30 PM	8:00 PM	85%	GRR-8125P	SOL	0:30
On	2/13/2023	8:00 PM	8:20 PM	90%	GRR-8126P	SOL	0:20
On	2/13/2023	8:30 PM	9:00 PM	86%	GRR-8126P	SOL	0:30
On	2/13/2023	9:00 PM	9:30 PM	86%	GRR-8126P	SOL	0:30
On	2/14/2023	3:30 AM	4:15 AM	92%	GRR-8125P	SOL	0:45
On	2/14/2023	11:00 AM	12:00 PM	90%	GRR-8125P	SOL	1:00
On	2/14/2023	1:00 PM	1:30 PM	94%	GRR-81	SOL	0:30
On	2/14/2023	1:00 PM	2:00 PM	94%	GRR-8126P	SOL	1:00
On	2/14/2023	2:00 PM	2:30 PM	87%	GRR-81	SOL	0:30
On	2/15/2023	8:00 AM	9:00 AM	92%	GRR-8125P	SOL	1:00
On	2/15/2023	10:00 AM	10:30 AM	91%	GRR-8126P	SOL	0:30
On	2/15/2023	4:00 PM	4:30 PM	94%	GRR-109	SOL	0:30
On	2/16/2023	8:00 AM	10:00 AM	93%	GRR-106	SOL	2:00
On	2/16/2023	2:00 PM	3:00 PM	90%	GRR-7071	SOL	1:00
On	2/16/2023	3:00 PM	4:00 PM	84%	GRR-7071	SOL	1:00
On	2/16/2023	4:00 PM	5:00 PM	82%	GRR-7071	SOL	1:00
On	2/17/2023	1:45 AM	3:00 AM	85%	GRR-106	SOL	1:15
On	2/17/2023	1:45 AM	3:00 AM	85%	GRR-104	SOL	1:15
On	2/17/2023	3:00 AM	4:15 AM	93%	GRR-109	SOL	1:15
On	2/17/2023	3:00 AM	4:15 AM	93%	GRR-109OB	SOL	1:15
On	2/17/2023	9:30 PM	11:00 PM	92%	GRR-106	SOL	1:30
On	2/17/2023	9:30 PM	11:00 PM	92%	GRR-106OB	SOL	1:30
On	2/17/2023	10:00 PM	11:30 PM	89%	GRR-7071	SOL	1:30
On	2/18/2023	12:00 AM	12:30 AM	92%	GRR-109OB	SOL	0:30
On	2/21/2023	8:00 AM	9:00 AM	77%	GRR-81	SOL	1:00
On	2/21/2023	9:00 AM	10:00 AM	79%	GRR-81	SOL	1:00
On	2/22/2023	11:00 AM	12:00 PM	61%	GRR-8126P	SOL	1:00
On	2/22/2023	12:00 PM	1:00 PM	59%	GRR-8125P	SOL	1:00
On	2/22/2023	8:30 PM	9:00 PM	76%	GRR-8125P	SOL	0:30
On	2/22/2023	9:30 PM	10:00 PM	71%	GRR-8125P	SOL	0:30
On	2/22/2023	10:00 PM	10:30 PM	63%	GRR-8126P	SOL	0:30
On	2/22/2023	10:30 PM	11:00 PM	66%	GRR-8126P	SOL	0:30
On	2/23/2023	3:00 AM	4:30 AM	72%	GRR-8126P	SOL	1:30
On	2/23/2023	3:00 AM	4:30 AM	72%	GRR-8126P	SOL	1:30
On	2/23/2023	2:00 PM	3:00 PM	90%	060513-1HF FR	SOL	1:00
On	2/23/2023	4:00 PM	5:00 PM	94%	060513-1HF FR	SOL	1:00
On	2/23/2023	7:00 PM	7:30 PM	90%	02008-7	SOL	0:30

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	2/23/2023	7:00 PM	7:30 PM	90%	02008-7OB	SOL	0:30
On	2/23/2023	7:30 PM	8:00 PM	88%	02008-7	SOL	0:30
On	2/23/2023	7:30 PM	8:00 PM	88%	02008-7OB	SOL	0:30
On	2/23/2023	9:30 PM	11:30 PM	52%	02286-2	SOL	2:00
On	2/23/2023	9:30 PM	11:30 PM	52%	02286-2OB	SOL	2:00
On	2/23/2023	11:30 PM	11:45 PM	39%	02286-2OB	SOL	0:15
On	2/24/2023	11:00 AM	12:00 PM	78%	GRR-7071A	SOL	1:00
On	2/24/2023	7:00 PM	8:30 PM	91%	060513-1HF FR	SOL	1:30
On	2/25/2023	4:45 AM	5:15 AM	60%	GRR-7071A	SOL	0:30
On	2/28/2023	8:00 AM	10:00 AM	94%	GRR-8125P	SOL	2:00
On	2/28/2023	12:00 PM	2:00 PM	92%	GRR-8125P	SOL	2:00
On	3/1/2023	3:45 AM	4:30 AM	93%	GRR-8125P	SOL	0:45
On	3/1/2023	10:00 AM	11:00 AM	71%	GRR-106	SOL	1:00
On	3/1/2023	2:00 PM	3:00 PM	81%	GRR-109	SOL	1:00
On	3/1/2023	4:00 PM	5:00 PM	83%	GRR-109	SOL	1:00
On	3/1/2023	8:30 PM	9:30 PM	94%	GRR-8125P	SOL	1:00
On	3/2/2023	1:15 AM	1:45 AM	94%	GRR-81	SOL	0:30
On	3/2/2023	4:00 AM	5:39 AM	91%	GRR-109	SOL	1:39
On	3/2/2023	4:15 AM	5:00 AM	92%	GRR-8125P	SOL	0:45
On	3/2/2023	10:00 AM	11:00 AM	82%	GRR-8126P	SOL	1:00
On	3/3/2023	10:00 AM	12:00 PM	82%	GRR-7071	SOL	2:00
On	3/3/2023	2:00 PM	3:00 PM	80%	GRR-7071	SOL	1:00
On	3/4/2023	9:30 PM	10:30 PM	31%	GRR-7071	SOL	1:00
On	3/6/2023	5:00 PM	6:00 PM	91%	GRR-119	SOL	1:00
On	3/7/2023	12:15 AM	1:00 AM	86%	GRR-113B	SOL	0:45
On	3/7/2023	3:30 AM	4:45 AM	74%	GRR-115B	SOL	1:15
On	3/7/2023	4:00 AM	5:00 AM	81%	GRR-115B	SOL	1:00
On	3/8/2023	9:00 AM	10:00 AM	88%	Perm-8	SOL	1:00
On	3/8/2023	10:00 AM	11:00 AM	81%	Perm-7	SOL	1:00
On	3/8/2023	11:00 AM	12:00 PM	84%	Perm-7	SOL	1:00
On	3/8/2023	12:00 PM	2:00 PM	88%	Perm-6/Perm-8	SOL	2:00
On	3/8/2023	7:30 PM	8:00 PM	47%	Perm-8	SOL	0:30
On	3/8/2023	8:00 PM	8:20 PM	42%	Perm-8	SOL	0:20
On	3/8/2023	8:30 PM	9:15 PM	38%	Perm-8	SOL	0:45
On	3/8/2023	9:30 PM	10:30 PM	55%	Perm-8	SOL	1:00
On	3/9/2023	3:30 AM	4:20 AM	87%	Perm-8	SOL	0:50
On	3/9/2023	4:20 AM	5:15 AM	92%	Perm-8	SOL	0:55
On	3/9/2023	6:00 AM	9:00 AM	84%	GRR-118A	SOL	3:00
On	3/9/2023	9:00 AM	11:00 AM	61%	GRR-118A	SOL	2:00
On	3/10/2023	3:30 AM	4:00 AM	90%	GRR-118A	SOL	0:30
On	3/10/2023	8:00 PM	9:00 PM	47%	GRR-113B	SOL	1:00
On	3/11/2023	1:30 AM	2:15 AM	92%	WT003N	SOL	0:45
On	3/11/2023	2:15 AM	3:00 AM	53%	WT003N	SOL	0:45
On	3/11/2023	3:00 AM	3:30 AM	41%	WT003N	SOL	0:30
On	3/22/2023	12:00 PM	12:30 PM	78%	GRR106	SOL	0:30

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	3/22/2023	1:00 PM	2:00 PM	86%	GRR106	SOL	1:00
On	3/22/2023	8:00 PM	8:45 PM	73%	GRR109	SOL	0:45
On	3/23/2023	1:00 AM	2:00 AM	29%	GRR109	SOL	1:00
On	3/23/2022	2:00 AM	3:00 AM	69%	GRR109	SOL	1:00
On	3/23/2023	3:30 AM	5:00 AM	92%	GRR106	SOL	1:30
On	3/23/2023	8:00 AM	8:30 AM	77%	GRR106	SOL	0:30
On	3/23/2023	9:30 AM	10:30 AM	91%	GRR109	SOL	1:00
On	3/25/2023	2:00 AM	3:00 AM	17%	GRR119	SOL	1:00
On	3/25/2023	3:00 AM	4:00 AM	12%	GRR117	SOL	1:00
On	3/28/2023	6:00 PM	7:00 PM	85%	GRR113B	SOL	1:00
On	3/29/2023	5:00 AM	6:00 AM	94%	GRR115B	SOL	1:00
On	3/29/2023	10:00 AM	11:00 AM	49%	GRR115B	SOL	1:00
On	3/29/2023	12:00 PM	2:00 PM	75%	PERM 7	SOL	2:00
On	3/29/2023	3:00 PM	4:00 PM	39%	500TP2	SOL	1:00
On	3/29/2023	4:00 PM	5:00 PM	80%	500TP2	SOL	1:00
On	3/30/2023	6:00 AM	6:50 AM	92%	500TP2	SOL	0:50
On	3/30/2023	2:00 PM	3:00 PM	90%	WT003N	SOL	1:00
On	3/30/2023	2:00 PM	3:00 PM	90%	GRR81	SOL	1:00
On	3/30/2023	3:00 PM	4:00 PM	85%	WT003N	SOL	1:00
On	3/30/2023	3:00 PM	4:00 PM	85%	GRR81	SOL	1:00
On	3/30/2023	4:00 PM	5:00 PM	88%	WT003N	SOL	1:00
On	3/30/2023	5:00 PM	6:00 PM	80%	GRR81	SOL	1:00
On	3/30/2023	8:00 PM	9:00 PM	91%	GRR118A	SOL	1:00
On	3/31/2023	8:00 PM	9:20 PM	87%	GRR71	SOL	1:20
On	4/3/2023	8:00 AM	8:25 AM	80%	GRR106	SOL	0:25
On	4/3/2023	8:30 AM	9:00 AM	88%	GRR106	SOL	0:30
On	4/3/2023	9:00 AM	10:00 AM	92%	GRR106	SOL	1:00
On	4/4/2023	7:00 AM	9:00 AM	58%	GRR106	SOL	2:00
On	4/4/2023	10:00 AM	11:00 AM	63%	GRR109	SOL	1:00
On	4/4/2023	11:00 AM	12:00 PM	35%	GRR106	SOL	1:00
On	4/4/2023	1:00 PM	2:00 PM	48%	GRR109	SOL	1:00
On	4/4/2023	8:00 PM	9:45 PM	86%	GRR106	SOL	1:45
On	4/4/2023	9:15 PM	11:00 PM	92%	GRR109	SOL	1:45
On	4/5/2023	2:30 AM	3:45 AM	89%	GRR106	SOL	1:15
On	4/5/2023	3:30 AM	5:00 AM	51%	GRR109	SOL	1:30
On	4/5/2023	7:00 AM	8:00 AM	94%	GRR8125P	SOL	1:00
On	4/5/2023	10:00 AM	11:00 AM	91%	GRR8125P	SOL	1:00
On	4/5/2023	11:00 AM	12:00 PM	92%	GRR8126P	SOL	1:00
On	4/5/2023	4:00 PM	5:00 PM	92%	GRR8125P	SOL	1:00
On	4/5/2023	8:30 PM	8:40 PM	83%	GRR1090B	SOL	0:10
On	4/5/2023	8:40 PM	8:50 PM	86%	GRR1090B	SOL	0:10
On	4/6/2023	1:10 AM	2:30 AM	86%	GRR109	SOL	1:20
On	4/6/2023	1:10 AM	2:30 AM	86%	GRR1090B	SOL	1:20
On	4/6/2023	2:30 AM	2:45 AM	77%	GRR1090B	SOL	0:15
On	4/6/2023	2:45 AM	3:00 AM	72%	GRR1060B	SOL	0:15

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	4/6/2023	8:00 AM	9:00 AM	82%	GRR7071	SOL	1:00
On	4/6/2023	9:00 AM	9:20 AM	84%	GRR7071A	SOL	0:20
On	4/6/2023	9:50 AM	11:10 AM	93%	GRR7071	SOL	1:20
On	4/6/2023	11:20 AM	11:30 AM	91%	GRR7071A	SOL	0:10
On	4/6/2023	9:30 PM	10:20 PM	92%	GRR8126P	SOL	0:50
On	4/7/2023	2:15 AM	3:30 AM	67%	GRR8126P	SOL	1:15
On	4/7/2023	8:30 PM	10:40 PM	77%	GRR7071	SOL	2:10
On	4/7/2023	8:30 PM	10:40 PM	77%	GRR7071A	SOL	2:10
On	4/8/2023	2:15 AM	3:00 AM	50%	GRR7071A	SOL	0:45
On	4/8/2023	3:10 AM	3:40 AM	43%	GRR7071A	SOL	0:30
On	4/8/2023	8:30 PM	9:30 PM	16%	GRR119	SOL	1:00
On	4/11/2023	11:00 AM	12:00 PM	72%	GRR119	SOL	1:00
On	4/11/2023	11:30 AM	12:20 PM	58%	GRR115B	SOL	0:50
On	4/11/2023	12:00 PM	1:00 PM	79%	GRR119	SOL	1:00
On	4/12/2023	4:00 PM	5:00 PM	82%	GRR118A	SOL	1:00
On	4/12/2023	11:30 PM	12:15 AM	91%	GRR102	SOL	0:45
On	4/13/2023	2:00 AM	3:30 AM	92%	GRR102	SOL	1:30
On	4/13/2023	2:00 PM	2:20 PM	70%	WT003N	SOL	0:20
On	4/13/2023	9:10 PM	10:10 PM	93%	WT003N	SOL	1:00
On	4/14/2023	12:00 AM	1:00 AM	78%	GRR81	SOL	1:00
On	4/14/2023	12:30 AM	2:00 AM	81%	GRR118A	SOL	1:30
On	4/14/2023	1:00 AM	1:30 AM	80%	GRR81	SOL	0:30
On	4/19/2023	10:00 AM	12:00 PM	90%	PERM8LF	SOL	2:00
On	4/19/2023	12:00 PM	2:00 PM	81%	PERM8LF	SOL	2:00
On	4/19/2023	2:00 PM	4:00 PM	80%	GRR7071	SOL	2:00
On	4/19/2023	7:00 PM	9:00 PM	84%	GRR8126P	SOL	2:00
On	4/19/2023	11:00 PM	1:00 AM	75%	GRR8125P	SOL	2:00
On	4/20/2023	11:00 AM	2:00 PM	73%	GRR7071	SOL	3:00
On	4/21/2023	10:45 AM	11:30 AM	18%	GRR1100B	SOL	0:45
On	4/21/2023	2:30 PM	4:00 PM	21%	GRR1100B	SOL	1:30
On	4/24/2023	10:00 AM	11:00 AM	93%	GRR109	SOL	1:00
On	4/24/2023	12:00 PM	1:00 PM	79%	GRR109	SOL	1:00
On	4/24/2023	12:00 PM	1:00 PM	79%	GRR106	SOL	1:00
On	4/24/2023	2:00 PM	3:00 PM	46%	GRR106	SOL	1:00
On	4/25/2023	6:40 AM	8:00 AM	91%	GRR109	SOL	1:20
On	4/25/2023	8:00 AM	9:00 AM	93%	GRR106	SOL	1:00
On	4/25/2023	9:00 AM	10:00 AM	88%	WT003N	SOL	1:00
On	4/25/2023	10:00 AM	10:40 AM	91%	GRR1060B	SOL	0:40
On	4/25/2023	11:00 AM	11:30 AM	88%	GRR1090B	SOL	0:30
On	4/25/2023	11:00 AM	12:00 PM	93%	WT003N	SOL	1:00
On	4/25/2023	9:30 PM	11:30 PM	87%	GRR106	SOL	2:00
On	4/26/2023	2:30 AM	4:15 AM	84%	GRR106	SOL	1:45
On	4/26/2023	6:00 AM	8:30 AM	91%	050109-2	SOL	2:30
On	4/26/2023	12:00 PM	1:00 PM	89%	050109-2	SOL	1:00
On	4/26/2023	1:00 PM	2:00 PM	62%	073118-1	SOL	1:00

Carbon System On/Off	Date	Beg. Time Batch	End Time Batch	Avg. Mixing %	Formula	Mode	Time
On	4/26/2023	9:00 PM	11:00 PM	92%	GRR106	SOL	2:00
On	4/26/2023	9:00 PM	11:00 PM	92%	GRR106OB	SOL	2:00
On	4/26/2023	11:00 PM	11:30 PM	78%	WN988A	SOL	0:30
On	4/26/2023	11:00 PM	2:00 AM	91%	GRR109	SOL	3:00
On	4/26/2023	11:00 PM	2:00 AM	91%	GRR109OB	SOL	3:00
On	5/4/2023	6:00 AM	7:00 AM	77%	GRR109	SOL	1:00
On	5/4/2023	6:30 AM	7:30 AM	77%	GRR109OB	SOL	1:00
On	5/4/2023	7:00 AM	8:00 AM	78%	GRR106	SOL	1:00
On	5/4/2023	7:30 AM	8:00 AM	79%	GRR106OB	SOL	0:30
On	5/4/2023	11:00 PM	11:30 PM	90%	GRR106OB	SOL	0:30
On	5/5/2023	12:00 AM	12:45 AM	92%	GRR109OB	SOL	0:45
On	5/5/2023	12:00 AM	12:45 AM	92%	GRR109OB	SOL	0:45
On	5/5/2023	1:00 AM	1:30 AM	93%	GRR106	SOL	0:30
On	5/5/2023	1:00 AM	1:30 AM	93%	GRR106OB	SOL	0:30
On	5/5/2023	1:30 AM	2:15 AM	89%	GRR109	SOL	0:45
On	5/5/2023	1:30 AM	2:15 AM	89%	GRR109OB	SOL	0:45
On	5/9/2023	9:00 AM	10:00 AM	86%	091014-01HFFR	SOL	1:00
On	5/9/2023	10:00 AM	1:00 PM	90%	091014-01HFFR	SOL	3:00
On	5/10/2023	8:00 AM	9:00 AM	85%	GRR109	SOL	1:00
On	5/10/2023	11:00 PM	12:30 AM	90%	GRR109	SOL	1:30
On	5/11/2023	10:00 AM	2:00 PM	93%	040308-5	SOL	4:00
On	5/12/2023	1:00 AM	2:20 AM	93%	040308-5	SOL	1:20
On	5/12/2023	5:00 AM	5:30 AM	83%	SF1546A	SOL	0:30
On	5/13/2023	3:10 AM	3:40 AM	81%	GRR81	SOL	0:30
On	5/13/2023	3:04 AM	4:20 AM	81%	GRR81	SOL	1:16
On	5/13/2023	4:30 AM	5:20 AM	81%	GRR81	SOL	0:50
On	5/16/2023	2:00 PM	4:00 PM	85%	GRR8126P	SOL	2:00
On	5/16/2023	5:00 PM	6:00 PM	91%	GRR8125P	SOL	1:00
On	5/16/2023	10:00 PM	1:00 AM	91%	GRR8126P	SOL	3:00
On	5/17/2023	12:30 AM	1:00 AM	90%	GRR7071	SOL	0:30
On	5/18/2023	6:00 PM	8:00 PM	91%	PERM 8	SOL	2:00
On	5/19/2023	7:00 PM	8:00 PM	82%	PERM 8	SOL	1:00
On	5/19/2023	8:00 PM	8:30 PM	82%	WT003N	SOL	0:30
On	5/19/2023	9:00 PM	10:30 PM	81%	PERM 8	SOL	1:30
On	6/13/2023	8:00 AM	8:30 AM	93%	GRR8126P	SOL	0:30
On	6/13/2023	9:00 AM	9:30 AM	91%	GRR8126P	SOL	0:30
On	6/13/2023	9:30 AM	9:50 AM	89%	GRR81	SOL	0:20
On	6/13/2023	9:55 AM	10:15 AM	93%	GRR81	SOL	0:20
On	6/13/2023	10:30 AM	11:00 AM	93%	GRR81	SOL	0:30
On	6/13/2023	12:00 PM	1:00 PM	90%	GRR8126P	SOL	1:00
On	6/14/2023	8:30 AM	10:00 AM	94%	GRR8126P	SOL	1:30
On	6/14/2023	10:00 AM	11:00 AM	89%	GRR81	SOL	1:00
On	6/14/2023	9:30 PM	11:30 PM	91%	GRR8125P	SOL	2:00
On	6/15/2023	12:00 PM	2:00 PM	90%	GRR1100B	SOL	2:00
On	6/15/2023	9:10 PM	10:15 PM	93%	GRR7071	SOL	1:05



**PTE Exceedances (January 1 – June 30, 2023)**

<b>Date</b>	<b>Coating type</b>	<b>Approximate duration</b>	<b>PTE ID</b>	<b>Note</b>
1/2/2023	Water	13 hr 45 min	PTE2	
1/3/2023	Water	5 hr 10 min	PTE2	
1/4/2023	Water	19 hr	PTE2	
1/6/2023	Water	2 minutes	PTE2	Changed from 7 hrs water; there were only 2 minutes where PTE2 was positive pressure
1/6/2023	Solvent	1 hr 11 min	PTE2	added
1/9/2023	Water	3 hr	PTE2	
1/16-17/2023	Water	6 hr 50 min	PTE2	Changed from 6 hr to 6 hr 50 min from 1/16-17
1/24/2023	Water	10 hr	PTE2	
1/25/2023	Water	10 hr 45 min	PTE2	
1/31/2023	Water	9 hr	PTE2	
2/2/2023	Solvent	1 minute	PTE2	Heat setting only
2/6/2023	Water	7 hr 25 min	PTE2	
2/7/2023	Water	10 hr 10 min	PTE2	Heat setting only
2/7-8/2023	Water	14 hr	PTE2	
2/8/2023	Water	In compliance	NA	PTE1 and PTE2 were under negative pressure during coating operations
2/9-10/2023	Water	14 hr	PTE2	
2/13/2023	Water	8 hr 40 min	PTE2	
2/21/2023	Water	11 hr	PTE2	Heat setting only
2/27/2023	Water	40 min	PTE2	Heat setting only
2/27-28/2023	Water	14 hr 5 min	PTE2	
3/6/2023	Water	15 min	PTE2	Changed from 59 minutes
3/10-11/2023	Water	7 hr 30 min	PTE2	
3/14-15/2023	Water	20 hr 55 min	PTE2	Heat setting only
3/15-16/2023	Water	28 hr	PTE2	
3/16-17/2023	Water	11 hr 38 min	PTE2	
3/17-18/2023	Water	17 hr 43 min	PTE2	
3/20/2023	Water	11 min	PTE2	
3/21-22/2023	Water	13 hr	PTE2	
3/23-24/2023	Water	12 hr 50 min	PTE2	
3/24-25/2023	Water	8 hr 55 min	PTE2	
3/27/2023	Water	2 hr 22 min	PTE2	Changed from 3/26-27 to 3/27
3/31-4/1/2023	Water	22 hr 45 min	PTE2	
4/7/2023	Water	2 hr 30 min	PTE2	
4/10/2023	Water	14 hr	PTE2	
4/11/2023	Water	4 hr 50 min	PTE2	
4/14-15/2023	Water	24 hr	PTE2	
4/24/2023	Water	In compliance	NA	Water setting (tap water is applied to raw uncoated fabric)
4/24-25/2023	Solvent	9 hr 12 min	PTE2	



Date	Coating type	Approximate duration	PTE ID	Note
4/26/2023	Water	6 hr 5 min	PTE2	
4/27/2023	Water	4 hr 28 min	PTE2	
4/27-28/2023	Water	6 hr 11 min	PTE2	
5/1-2/2023	Water	5 hr 24 min	PTE1 & PTE2	Heat setting in PTE2
5/2-3/2023	Water	3 hr 2 min	PTE2	Heat setting only
5/3/2023	Water	7 hr 2 min	PTE2	
5/4/2023	Solvent	4 hr 11 min	PTE2	
5/8/2023	Water	11 hr 8 min	PTE1 & PTE2	
5/9/2023	Water	5 hr 40 min	PTE1 & PTE2	
5/10/2023	Solvent	3 hr 2 min	PTE1 & PTE2	Heat setting in PTE2
5/10/2023	Solvent	4 hr 53 min	PTE2	
5/10-11/2023	Solvent	16 hr 18 min	PTE1 & PTE2	
5/12/2023	Solvent	In compliance	NA	PTE1 and PTE2 were under negative pressure during coating operations
5/15-16/2023	Water	21 hr 40 min	PTE1 & PTE2	Changed from 40 hr 48 min
5/16-17/2023	Solvent	15 min	PTE1 & PTE2	
5/17-18/2023	Solvent	5 hr 46 min	PTE1	
5/18/2023	Solvent	3 hr 18 min	PTE1	
5/22/2023	Water	5 hr 18 min	PTE2	
5/22-23/2023	Water	14 hr 46 min	PTE1 & PTE2	
5/24-25/2023	Water	24 hr	PTE1 & PTE2	
5/26/2023	Water	26 min	PTE1 & PTE2	
5/25-26/2023	Water	6 hr 16 min	PTE1 & PTE2	
5/30-31/2023	Water	16 hr 56 min	PTE1 & PTE2	
6/1/2023	Water	7 hr	PTE1 & PTE2	
6/12/2023	Water	9 hr 50 min	PTE1 & PTE2	
6/13/2023	Water	11 hr 10 min	PTE1 & PTE2	
6/15-16/2023	Solvent	15 hr 30 min	PTE1	
6/20-21/2023	Solvent	50 minutes	PTE1	
6/26/2023	Water	12 hr 50 min	PTE1 & PTE2	
6/27/2023	Water	18 hr 35 min	PTE1 & PTE2	
6/28/2023	Water	16 hr 40 min	PTE1 & PTE2	
6/28-29/2023	Water	9 hr 25 min	PTE1 & PTE2	