



Richard E. Dunn, Director

Air Protection Branch

4244 International Parkway
Suite 120
Atlanta, Georgia 30354
404-363-7000

Compliance Monitoring Report

1. General Information

Date of Inspection: September 11, 2020 (date of records submittal)
Date Report Completed: October 1, 2020
Compliance Monitoring Category: Announced-Records Inspection
Inspector Name: Sherry Waldron *S. Waldron*
Reviewing Manager: Stephen Damaske *S. Damaske*

2. Facility Information

Facility Name: BD (Becton, Dickinson and Company)
Facility AIRS No.: 211-00021
Facility Location: 1211 Mary Magnan Boulevard,
Madison, Georgia 30650, Morgan County
Facility Mailing Address: 8195 Industrial Boulevard
Covington, Georgia 30014
Facility Contact: Boone Brothers
EHS&S Manager
770-784-6744
Boone.brothers@crbard.com
John Lamontagne, Facility Engineering Manager
John.lamontagne@crbard.com
CMS Designation: Synthetic Minor Source

Air Quality Permit No. 3841-211-0021-S-04-0

Effective Date: January 9, 2019

Issued for the operation of a commercial sterilization facility and a regenerative thermal oxidizer. This Permit is issued for the purpose of establishing practically enforceable emission limitations such that the facility will not be considered a major source with respect to Title V of the Clean Air Act Amendments of 1990.

Permit(s) can be accessed at <https://permitsearch.gaepd.org/>

Inspection Report

AIRS No. 211-00021

BD (Becton, Dickinson and Company – Madison, Georgia

Page 1 of 8

3. Inspection Summary / Recommended Actions:

The inspection was conducted to verify compliance with the requirements of Air Quality Permit No. 3841-211-0021-S-04-0, effective January 9, 2019. No on-site inspection was conducted at this time since previous visit on November 8, 2019 met this requirement. A records request was issued to the facility to complete that onsite inspection.

No deviations from the Permit were discovered during the records inspection.

Based upon my review, it appears that the facility is in compliance with the Permit.

4. Previous Enforcement Actions and Inspections:

A Consent Order (Civil Action File No. SUCV2019002219 filed in Superior Court of Newton County) was executed on October 28, 2019 for the temporary closure of BD's medical device sterilization facility. The Order, among other things, required the reduction of fugitive emissions initially through increased aeration times and reduction in throughput and ultimately through a new fugitive emissions control system and LDAR program. The Order was amended on January 15, 2020 to address an off-site sterilized product storage facility with significant quantities of fugitive emissions. The Order was also amended on March 25, 2020 to temporarily update the Order due to the global pandemic, to allow, with certain stipulations, an increase in the allowed monthly product lots for sterilization. A new dry bed fugitive emissions control system was started up on June 30, 2020. Requirements from this Order will be incorporated into the permit in the future.

See attached Full Compliance Evaluation (FCE) Report for enforcement action details.

Previous inspection was conducted on April 14, 2016.

5. Complaint Investigations since last Full Compliance Evaluation:

None.

6. Applicable Requirements, Description of Regulated Emission Units, and Inspection Determinations:

Emission Units		Corresponding Permit Conditions	Air Pollution Control Devices		Inspection	
ID No.	Description		ID No.	Description	Evaluated During Inspection?	Inspection Determination
SV1- SV5	Sterilization Vessels	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.5, 2.6, 3.1, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4, 5.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 8.1, 8.2, 8.3	RTO-1	Regenerative Thermal Oxidizer	Yes – records review only	In compliance
A1A, A2A, A3A, A4A, A5A	Aeration Cells	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.4, 2.5, 2.6, 3.1, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4, 5.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 8.1, 8.2, 8.3	RTO-1	Regenerative Thermal Oxidizer	Yes – records review only	In compliance
A1B, A2B, A3B, A4B, A5B	Aeration Cells	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.4, 2.5, 2.5, 3.1, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4, 5.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 8.1, 8.2, 8.3	RTO-1	Regenerative Thermal Oxidizer	Yes – records review only	In compliance

7. Compliance Monitoring Activities – Details not included in table above:

- Describe any deviation from compliance noted during the inspection listed on Table 6:
None identified.
- Describe any compliance assistance provided during inspection:
N/A – no onsite inspection conducted.
- Describe any action taken by the facility to come back into compliance during the inspection:
N/A
- Deviations noted during the inspection, not previously listed. Include equipment ID or equipment description and condition number:
None identified.

8. Additional Permit Requirements:

a. Periodic Reports:

See attached Full Compliance Evaluation (FCE) Report for details.

b. Permit Fees:

See attached Full Compliance Evaluation (FCE) Report for details.

c. For any overall emission/production/usage limit:

Permit Condition	Permit Limit	Actual
2.3, 2.5	Requires ethylene oxide emissions be reduced by at least 99% from each sterilizer chamber vent, during sterilization operation but not during periods of malfunction	See attached testing summary
2.4, 2.5	Requires ethylene oxide emissions be reduced by at least 99% from each aeration room vent, or to 1ppm by volume or less, during sterilization operation but not during periods of malfunction	See attached testing summary

9. Attachments:

a. Inspection Observations:

N/A – no onsite inspection conducted – records review only.

b. Performance Tests:

See attachment

c. Full Compliance Evaluation (FCE) Report:

See attachment

d. Inspection Attachments:

Printout of E-mail requesting records

Inspection Record Submittal from September 11, 2020

Attachment: Inspection Observations

Emission Unit	Control Device	Parameter Monitor	Permit Limit	Current Inspection
Sterilization chambers, Aeration Rooms	RTO-1	Temperature, °F	≥1449.2 °F, 24-hour average, except during periods of startup, shutdown, or malfunction	Tower 1 = 1491 °F Tower 2 = 1524 °F Tower 3 = 1554 °F Draft: -1.1" w.c.

Permit Conditions		Inspection
1.1	Maintain and operate the source, at all times in a manner consistent with good air pollution control practices	In compliance. Records submitted indicated compliance with this requirement.
1.2	Prohibits building, erecting, installing, or using anything which conceals an emission which would constitute a violation.	Not evaluated – no onsite inspection conducted.
1.3	Submit an air quality permit application if necessary for any additional equipment or processes or changes that affect the emissions of the facility.	In compliance. A permit application is in house for additional control equipment.
1.4	Maintain records for at least five years.	In compliance. All records requested were provided.
1.5	When the requirements of the Permit conflict with each other, the most stringent condition shall prevail.	In compliance. No such conflicts have been identified.
2.1	Comply with 40 CFR 63 Subpart O for Ethylene Oxide Emissions	In compliance. No deviations from this rule were identified based on the records reviewed.
2.2	Comply with the applicable provisions of Table 1 of 40 CFR 63 Subpart O.	In compliance. No deviations from these requirements were identified based on the records reviewed.
2.6	Comply with the emissions limitations of Subpart O upon startup of the source.	Obsolete requirement. These compliance dates have passed.
3.1	Take all reasonable precautions to prevent fugitive emissions of air contaminants.	Not evaluated – no on site inspection conducted.
4.1	Perform routine maintenance on all air pollution control equipment. Maintain records for inspection for at least five years following the date of such maintenance.	In compliance. Examples of routine maintenance in the form of calibration records for the RTO thermocouples indicate compliance with this requirement.
4.2	Operate the RTO at or above the most recent minimum temperature established during the most recent performance test except during periods of startup, shutdown, and malfunction, (and on a 24-hour average basis). The minimum temperature established shall be at least equal to or higher than the recommended minimum operating temperature provided by the manufacturer of the RTO.	In compliance. These records were reviewed from January 2019 through June, 2020.

Permit Conditions		Inspection
5.1	Continuously monitor and record the oxidation temperature of the RTO or record the ethylene oxide concentration when the RTO is operated.	In compliance. Records of the 15-minute temperature readings were spot-checked through review of records from a specified timeframe. Records were complete and consistent with reports.
5.2	Install, calibrate, maintain, and operate a system to continuously monitor and record the oxidation temperature as determined from the average reading of the three combustion chamber temperature sensors on the RTO. Monitoring is required only when the RTO is operated. The temperature monitor shall be accurate within $\pm 5.6^{\circ}\text{C}$ ($\pm 10^{\circ}\text{F}$). Where such performance specifications exist, each system shall meet the applicable performance specifications of the Division's monitoring requirements.	In compliance. The attached specification sheets for the thermocouples indicate compliance with these requirements.
5.3	Verify the accuracy of the temperature monitor (traceable to NIST standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested. As an alternative, the accuracy temperature monitor may be verified in a calibrated oven (traceable to NIST standards).	In compliance. The most recent two thermocouple calibrations were obtained. The thermocouples were most recently calibrated on August 20, 2020.
5.5	Any monitoring system installed by the Permittee shall be in continuous operation except during calibration checks, zero and span adjustments or periods of repair. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.	In compliance. The facility uses both digital recorders and a chart recorder as backup, ensuring compliance with this requirement.
5.6	Provide and maintain a spare parts inventory for any monitoring system installed. A list of parts to be kept in inventory shall be kept in a form suitable for inspection by the Division for no less than five years.	In compliance. The spare parts inventory, attached, was obtained, and reviewed. This included, for example, actuators, flame arrestors, monitor charts, and pressure sensors.
6.1, 6.2, 6.3, 6.4, 7.3, 7.4	Conduct a performance test at any specified emission point when so directed by the Division according to the specified provisions. Notify the Division of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin. Analyze performance audit samples during each performance test. Provide performance testing facilities and conduct tests under representative conditions of performance of the source. Submit a site-specific test plan along with the Notification of Intent to conduct a performance test. Submit the results and notification of compliance status within 60 days following completion of the test.	In compliance. Tests have been completed as required. Where specified by the permit and Subpart O, these requirements have been met. While not evaluated during the inspection, the Industrial Source Monitoring Unit has evaluated these requirements as well in reviewing test reports and accepted those.
7.1, 7.2, 7.6, 7.7	Maintain records of the occurrence of SSM, all measurements, performance test results, maintenance, etc., Subpart O required records, and all information required by the permit for five years	In compliance. All records requested were available for review.

Permit Conditions		Inspection
7.5, 7.9, 7.10	Submit semiannual deviation and CMS performance and summary reports for Subpart O. Submit reports of excess emissions, exceedances, and/or excursions and monitor downtime. Report any 24-hour average of the oxidation temperature for the RTO that is below the required set point of Condition 4.2.	In Compliance. The Division files indicates reports have been submitted as required. Records reviewed were consistent with those reports.
7.8	The data acquisition system for the temperature monitors required by Condition 5.2 shall compute and record a daily average oxidation temperature from the 15-minute or shorter period temperature values. Strip chart data shall be converted to record a daily average oxidation temperature for each day any instantaneous temperature recording falls below the minimum temperature.	In compliance. The facility uses a digital recorder for their main compliance with this condition, and a strip chart for backup. 24-hour average daily temperatures were available as required.

Attachment: Performance Tests

Source Tested	Pollutant	Date of Test	Required Testing Frequency	Limit	Actual	Percent of Allowable
Sterilization Chambers/RTO	Ethylene Oxide	January 26, 2018	One-time, unless otherwise requested	99% DRE	99.9995%	N/A
Aeration Cells/RTO	Ethylene Oxide	January 25, 2018	One-time, unless otherwise requested	99% / 1ppm	99.7% / 0.265 ppm	26.5%



ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Air Protection Branch

4244 International Parkway, Suite 120
Atlanta, Georgia 30354
404-363-7000

Full Compliance Evaluation Report

BD (Becton, Dickinson and Company), Madison

211-00021

Facility description: Medical Device Sterilization

1211 Mary Magnan Blvd
Madison, GA 30650

Morgan County
Lat: 33.562, Long: -83.468

Operating status: Operational
Classification: Synthetic minor
CMS status: SM
SIC code: 3841
NAICS code: 339112
Air Programs: SIP, MACT
Classifications: None

Full Compliance Evaluation

FCE Year: **2020**

FCE tracking number: **10441**

Reviewed by: Waldron, Sherry

Date completed: **29-Sep-2020**

On-site inspection conducted

Comments: N/A

Supporting compliance data for September 29, 2019 through September 29, 2020

Inspections

Tracking #	Date	Inspector	Reason for inspection	Operating	Compliance status
81317	8-Nov-2019	Damaske, Stephen	Follow Up	Yes	Compliant

Comments: This inspection was performed to verify compliance with Civil Action File No. SUCV2019002219 from the Superior Court of Newton County State of Georgia filed in open court October 28, 2019. Specifically, the inspection was pertaining to conditions in Attachment A that pertained to the BD Madison Facility (Conditions 2, 7, 14, 15, 16, and 18). The Company had appropriate records for each of the conditions pertaining to the facility from the order. The facility appeared incompliance with all conditions of the Consent Order at the time of inspection.

RMP Inspections

None

Annual Compliance Certifications

None

Reports

<u>Tracking #</u>	<u>Report period</u>	<u>Date received</u>	<u>Reviewer</u>	<u>Deviations reported</u>
85536	Other 28-Sep-2020	11-Sep-2020	Waldron, Sherry	No
<i>Comments:</i> The submittal is a response to a records request in order to do a records inspection.				
85045	First Semiannual 1-Jan-2020 – 30-Jun-2020	3-Aug-2020	Pyo, Chang	No
<i>Comments:</i> No excess emissions or malfunctions during the reporting period				
82304	Second Semiannual 1-Jul-2019 – 31-Dec-2019	4-Feb-2020	Pyo, Chang	No
<i>Comments:</i> No excess emissions or malfunctions noted during reporting period				

Notifications

None

Source Tests

None

Fees Data

<u>Fee year</u>	<u>Invoiced amount</u>	<u>Amount paid</u>	<u>Balance</u>	<u>Status</u>
2019	\$2,100.00			GECO User has reported for the Fee Year
2018	\$1,700.00	\$1,700.00	\$0	Paid in Full
2017	\$1,700.00	\$1,700.00	\$0	Paid in Full
2016	\$1,700.00	\$1,700.00	\$0	Paid in Full
2015	\$1,700.00	\$1,700.00	\$0	Paid in Full

Five-Year History of Enforcement Actions

None

Waldron, Sherry

From: Waldron, Sherry
Sent: Thursday, September 10, 2020 7:59 AM
To: Boone Brothers
Cc: Damaske, Stephen
Subject: Fw: Records Request - Madison facility

Importance: High

As we discussed in our phone conversation on August 13, the following email was sent to request records for the BD Madison plant in lieu of an additional onsite inspection. The records are necessary in order to ascertain BD's compliance with Permit No. 3841-211-0021-S-04-0, and are required to be maintained in a form suitable for inspection or submittal to the Division. The Division has yet to receive the requested records.

Please provide both electronic (e-mailed, to me) as well as paper copies for the Division's files, by COB tomorrow, September 11, 2020.

Thank you,

Sherry Waldron
Environmental Engineer
Georgia Environmental Protection Division
Air Protection Branch
404-362-4569

From: Waldron, Sherry
Sent: Friday, August 7, 2020 2:55 PM
To: Boone.Brothers@Bd.com <Boone.Brothers@Bd.com>
Subject: Records Request - Madison facility

For FY2020, a review of selected records will be utilized in addition to previous on-site visits to fully evaluate how BD (Becton, Dickinson and Company) in Madison, Georgia complies with its Georgia Air Quality Permit No. 3841-211-0021-S-04-0. Please provide, by August 28, 2020, copies of the following selected records. Please provide both electronic as well as paper copies for the Division's files.

- Records of the two most recent calibrations for the regenerative thermal oxidizer thermocouples (P.C. 4.1, 5.2, 5.3, 7.2), including a brief description of the method through which the facility ensures the accuracy of the monitors.
- The most recent minimum temperature set point of RTO-1, and records of how the set point was determined (P.C. 4.2, 7.2).
- Records of either the ethylene oxide concentration measured and recorded in accordance with 40 CFR 63.364(e), or records of the oxidation temperature of the temperature monitor(s) for RTO-1, for the time period May 23 – June 5, 2020. If any downtime is shown in this time period whereby the RTO-1 was not operated, include records used to establish that no ethylene oxide sterilization is taking place or that a calibration check, zero and span adjustment, or period of repair is occurring (P.C. 5.1, 5.5, 7.1, 7.2, 7.6).
- The list of spare parts inventory for the RTO-1 monitoring system (P.C. 5.6).

- Daily average oxidation temperatures for RTO-1, recorded in accordance with P.C. 7.8, from January 10, 2019 through July 31, 2020.

If any of the requested records are voluminous in nature, please let me know so we can discuss a better way to obtain or submit it.

Thank you for your assistance in this matter. Please feel free to reach out if you have questions.
Sincerely,

Sherry Waldron
Environmental Engineer
Georgia Environmental Protection Division
Air Protection Branch
404-362-4569



Boone Brothers
8195 Industrial Blvd
Covington, Georgia 30014
t: 770.784.6744
c: 404.447.9052
email: boone.brothers@bd.com

September 28, 2020

Sherry Waldron
Environmental Engineer
Stationary Source Compliance Program, Air Toxics Unit
Georgia Environmental Protection Division
4244 International Parkway, Suite 120
Atlanta, GA 30345

RECEIVED
OCT 06 2020
AIR PROTECTION
BRANCH
PM 9-28-20

Re: Compliance Inspection Document Request

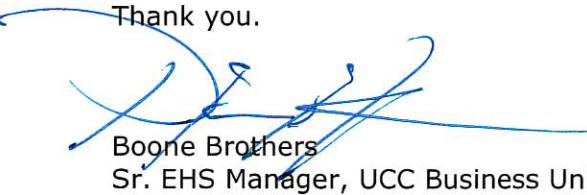
Dear Ms. Waldron:

EPD Conducted a site visit on November 8, 2019. As a follow up EPD requested additional documents for review. Please see the attached documents.

- Records of the two most recent calibrations
 - 5-21-20 RTO Calibration
 - 8-20-20 RTO Calibration
- The most recent minimum temperature set point of RTO-1, and records of how the set point was determined
 - See the BD Madison RTO Destruction Efficiency Test Summaries 1_25-2_2018.
 - Set point for the RTO is 1468°F
- Records of either the ethylene oxide concentration measured and recorded in accordance with 40 CFR 63.364(e), or records of the oxidation temperature of the temperature monitor(s) for RTO-1, for the time period May 23 – June 5, 2020
 - See the Spreadsheet titled: Madison RTO Oxidation Temp May 23-June 5 2020
- The list of spare parts inventory for the RTO-1 monitoring system
 - See the document: Madison RTO Inventory
- Daily average oxidation temperatures for RTO-1, recorded in accordance with P.C. 7.8, from January 10, 2019 through July 31, 2020
 - See the Spreadsheet titled: Madison 24 hr av 10JAN2019-31JUL2020

Please see the enclosed documents for review, and do not hesitate to contact me for any questions.

Thank you.


Boone Brothers
Sr. EHS Manager, UCC Business Unit

217 00021

Bard

RTO Temperature Verification / RTO Chart Recorder vs. HMI

FM0300269
 Revision 7
 Page 1 of 1
 Reference: S03RS15115

RTO CALIBRATION

"As Found" "As Left"

Set Point	TC #1 Reference # 3A3B		TC #2 Reference # 5		TC #3 Reference # 7	
	HMI	Error	HMI	Error	HMI	Error
1000°F	1000	0	1000	0	1000	0
1000°F	1000	0	1001	1	1000	0
1000°F	1001	1	1001	1	1000	0
1500°F	1499	-1	1500	0	1500	0
1500°F	1500	0	1501	1	1500	0
1500°F	1500	0	1501	1	1500	0
1800°F	1800	0	1801	1	1800	0
1800°F	1800	0	1801	1	1801	1
1800°F	1801	1	1801	1	1801	1

Error Limit $\pm 2.0^{\circ}\text{F}$ TC replaced Yes No

Note: Attach the reference certificate

HMI TC #1	HMI TC#2	HMI TC #3	HMI Avg.	Calc. Average	Chart Average	Data Logger Average	HMI vs Calc.	Chart vs Calc.	Data Logger Vs. Calc.
1485	1494	1520	1500	1500	1499	1499	0	-1	-1
1501	1511	1546	1519	1519	1519	1519	0	0	0
1476	1475	1470	1474	1474	1473	1473	0	-1	-1

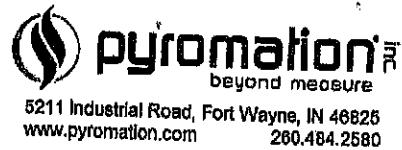
Error Limit $\pm 1.0^{\circ}\text{F}$

NOTE: Write N/A in any blank that does not apply for Madison Facility

Temperature Standard Serial #: C-1744104Calibration Due Date: 14 Oct 20Wire re-connection verified by: LBDate: 21 MAY 20Calibrated By: LBDate: 21 MAY 20Verified By: JMBDate: 21 MAY 20Reviewed By (QA): Ashley MillerDate: 02 Jun 2020 - 05:48 PM



Report of Calibration



Report Number: 89439

Calibration Date: 03/03/2020

Submitted By: Bmd Madison, GA 30650
PO Number: 767593

SO Number: 1337013

Type K Thermocouple

KK8RMZ-12-0,342,(Z233)

Tolerance: ASTM E230/E230M-17 Special Tolerance

Item	Serial No	Target (°F)	Actual (°F)	Reading (°F)	Correction (°F)	Tolerance (°F)	Status	Immersion (in)	Uncertainty (°F)
1A	DEC86C	1000	1000.5	998.3	2.2	± 4.0	In Tolerance	17	1.6
		1500	1500.2	1499.1	1.1	± 5.9	In Tolerance	17	1.5
		1900	1900.5	1899.6	0.9	± 7.6	In Tolerance	17	1.5
1B	DEC86C	1000	1000.5	997.6	2.9	± 4.0	In Tolerance	17	1.5
		1500	1500.2	1498.6	1.6	± 5.9	In Tolerance	17	1.5
		1900	1900.5	1899.6	0.9	± 7.6	In Tolerance	17	1.5
2A	DEC86D	1000	1000.5	998.6	2.0	± 4.0	In Tolerance	17	1.5
		1500	1500.2	1499.7	0.5	± 5.9	In Tolerance	17	1.5
		1900	1900.5	1900.3	0.2	± 7.6	In Tolerance	17	1.5
2B	DEC86D	1000	1000.1	997.9	2.2	± 4.0	In Tolerance	17	1.5
		1500	1499.9	1499.0	0.9	± 5.9	In Tolerance	17	1.5
		1900	1900.3	1899.8	0.5	± 7.6	In Tolerance	17	1.5
3A	DEC86E	1000	1000.1	997.8	2.3	± 4.0	In Tolerance	17	1.6
		1500	1499.9	1499.0	0.9	± 5.9	In Tolerance	17	1.5
		1900	1900.3	1900.5	-0.2	± 7.6	In Tolerance	17	1.5
3B	DEC86E	1000	1000.1	997.8	2.3	± 4.0	In Tolerance	17	1.5
		1500	1499.9	1497.9	2.0	± 5.9	In Tolerance	17	1.5
		1900	1900.3	1899.2	1.1	± 7.6	In Tolerance	17	1.5
4A	DEC86F	1000	1000.4	998.6	1.8	± 4.0	In Tolerance	17	1.5
		1500	1500.0	1498.6	1.4	± 5.9	In Tolerance	17	1.5
		1900	1900.7	1899.1	1.6	± 7.6	In Tolerance	17	1.5

Remarks: Calibrated Prior To Final Assembly.

The correction must be added algebraically to the UUT reading to obtain the correct value.

ID Number	Manufacturer	Model	Equipment and Standards Used	Description	Calibration Due
03-2787	Agilent	3468A		8 1/2 Digit Digital Multimeter	10/24/2020
03-3472	Pyromation	SPEC 621-00		Type S Reference Standard	08/07/2020
03-3473	Pyromation	SPEC 621-00		Type S Reference Standard	08/07/2020

Environmental Conditions at time of Calibration: Temperature: 23 °C [73 °F] Relative Humidity: 26%

Procedure Used: WI-526-38 Rev 4 which is based, in part on ASTM E220-19

As Found: In Tolerance

As Left: In Tolerance

Calibration performed by: Lindi Bunn, Metrology Technician

The temperatures written in this report are those defined by the International Temperature Scale of 1990 (ITS-90).

The combined standard uncertainty includes the standard uncertainty reported for the standard, and the measurement process. No allowance is included in the uncertainty for thermocouple drift and inhomogeneity. The combined standard uncertainty is multiplied by a coverage factor of 2 to give an expanded uncertainty, which defines an interval having a level of confidence of approximately 99 percent. The expanded uncertainty presented in this report is consistent with the JCGM100:2008 Guide to the Expression of Uncertainty in Measurement. The expanded uncertainty is not to be confused with a tolerance limit for the user during application. Uncertainties are not included in the determination of acceptance.

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded in accordance with the rounding method of ASTM Practice E29-19.

The standards of Pyromation Laboratory are traceable to the International System of Units (SI) through NIST or other National Metrology Institute, and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The laboratory report number identified above is the unique report number to be used in referencing measurement traceability for the items identified in this report only.

This calibration is compliant to ISO/IEC 17025:2017. This calibration report applies only to the items described. It must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

This report shall not be reproduced except in full without written approval of Pyromation, Inc.



Report of Calibration



Report Number: 79921

Calibration Date: 03/08/2018

Submitted By: BMD-Covington Covington, GA 30014
PO Number: 18-363

SO Number: 1249800

Type K Thermocouple

K8RM-12-0,341

Tolerance: ASTM E230/E230M-12 Special Tolerance

Item	Serial No	Target (°F)	Actual (°F)	Reading (°F)	Correction (°F)	Tolerance (°F)	Status	Immersion (in)	Uncertainty (°F)
1	D1784D	1000	999.7	997.0	2.7	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1497.8	2.0	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1898.6	2.5	± 7.5	In Tolerance	17	1.5
2	D1784E	1000	999.7	996.6	3.1	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1497.8	2.0	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1898.9	2.2	± 7.5	In Tolerance	17	1.5
3	D1784F	1000	999.7	996.1	3.6	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1496.9	2.9	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1895.7	5.4	± 7.5	In Tolerance	17	1.5
4	D17850	1000	999.1	997.1	2.0	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1498.6	1.1	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1899.6	1.8	± 7.5	In Tolerance	17	1.5
5	D17851	1000	999.1	996.2	2.9	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1497.5	2.2	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1898.3	3.1	± 7.5	In Tolerance	17	1.5
6	D17852	1000	999.1	996.9	2.2	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1497.9	1.8	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1898.9	2.5	± 7.5	In Tolerance	17	1.5
7	D17853	1000	1000.6	997.4	3.2	± 3.9	In Tolerance	17	1.5
		1500	1501.4	1498.5	2.9	± 5.9	In Tolerance	17	1.5
		1900	1900.0	1897.6	2.5	± 7.5	In Tolerance	17	1.5

Remarks: Calibrated Prior To Final Assembly

The correction must be added algebraically to the UUT reading to obtain the correct value.

Equipment and Standards Used				
ID Number	Manufacturer	Model	Description	Calibration Due
03-2787	Agilent	3458A	8 1/2 Digit Digital Multimeter	08/31/2018
03-3471	Pyromation	SPEC 621-00	Type S Reference Standard	04/09/2018
03-3472	Pyromation	SPEC 621-00	Type S Reference Standard	04/10/2018
03-3474	Pyromation	SPEC 621-00	Type S Reference Standard	04/10/2018

Environmental Conditions at time of Calibration: Temperature: 23 °C [73 °F] Relative Humidity: 13%

Procedure Used: WI-525-36 Rev 4 which is based, in part on ASTM E220-13

As Found: In Tolerance

As Left: In Tolerance

Calibration performed by: Lindi Bunn, Metrology Technician

The temperatures written in this report are those defined by the International Temperature Scale of 1990 (ITS-90)

The combined standard uncertainty includes the standard uncertainty reported for the standard, and the measurement process. No allowance is included in the uncertainty for thermocouple drift and inhomogeneity. The combined standard uncertainty is multiplied by a coverage factor of 2 to give an expanded uncertainty, which defines an interval having a level of confidence of approximately 95 percent. The expanded uncertainty presented in this report is consistent with the JCGM100:2008 Guide to the Expression of Uncertainty in Measurement. The expanded uncertainty is not to be confused with a tolerance limit for the user during application. Uncertainties are not included in the determination of acceptance.

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded in accordance with the rounding method of ASTM Practice E29-13

The standards of Pyromation Laboratory are traceable to the International System of Units (SI) through NIST or other National Metrology Institute, and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The laboratory report number identified above is the unique report number to be used in referencing measurement traceability for the items identified in this report only.

This calibration is compliant to ISO/IEC 17025:2005. This calibration report applies only to the items described. It must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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Bard

RTO Temperature Verification / RTO Chart Recorder vs. HMI

FM0300269
 Revision 7
 Page 1 of 1
 Reference: S03RS15115

RTO CALIBRATION
 "As Found" "As Left"

Set Point	TC #1 Reference # 1A 1B		TC #2 Reference # 1		TC #3 Reference # 2	
	HMI	Error	HMI	Error	HMI	Error
1000°F	1001	1	1000	0	1001	1
1000°F	1001	1	1000	0	1001	1
1000°F	1001	1	1000	0	1001	1
1500°F	1501	1	1500	0	1501	1
1500°F	1501	1	1500	0	1501	1
1500°F	1501	1	1500	0	1501	1
1800°F	1801	1	1800	0	1801	1
1800°F	1801	1	1800	0	1801	1
1800°F	1801	1	1800	0	1801	1

Error Limit $\pm 2.0^{\circ}\text{F}$ TC replaced Yes No

Note: Attach the reference certificate

HMI TC #1	HMI TC#2	HMI TC #3	HMI Avg.	Calc. Average	Chart Average	Data Logger Average	HMI vs Calc.	Chart vs Calc.	Data Logger Vs. Calc.
1501	1501	1519	1507	1507	1506	1507	0	-1	0
1502	1502	1518	1507	1507	1506	1507	0	-1	0
1502	1502	1518	1507	1507	1506	1507	0	-1	0

Error Limit $\pm 1.0^{\circ}\text{F}$

NOTE: Write N/A in any blank that does not apply for Madison Facility

Temperature Standard Serial #: C-1744/104Calibration Due Date: 14 Oct 20Wire re-connection verified by: BurkeDate: 20 Aug 20Calibrated By: BurkeDate: 20 Aug 20Verified By: ZBSDate: 20 Aug 20Reviewed By (QA): Ashley MillerDate: 25 Aug 2020 - 05:41 PM



Report of Calibration



Report Number: 79921

Calibration Date: 03/08/2018

Submitted By: BMD-Covington Covington, GA 30014
PO Number: 18-363

SO Number: 1249800

Type K Thermocouple
K8RM-12-0,341

Tolerance: ASTM E230/E230M-12 Special Tolerance

Item	Serial No	Target (°F)	Actual (°F)	Reading (°F)	Correction (°F)	Tolerance (°F)	Status	Immersion (in)	Uncertainty (°F)
1	D1784D	1000	999.7	997.0	2.7	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1497.8	2.0	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1898.6	2.5	± 7.5	In Tolerance	17	1.5
2	D1784E	1000	999.7	996.6	3.1	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1497.8	2.0	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1898.9	2.2	± 7.5	In Tolerance	17	1.5
3	D1784F	1000	999.7	996.1	3.6	± 3.9	In Tolerance	17	1.5
		1500	1499.8	1496.9	2.9	± 5.9	In Tolerance	17	1.5
		1900	1901.1	1895.7	5.4	± 7.5	In Tolerance	17	1.5
4	D17850	1000	999.1	997.1	2.0	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1498.6	1.1	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1899.6	1.8	± 7.5	In Tolerance	17	1.5
5	D17851	1000	999.1	996.2	2.9	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1497.5	2.2	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1898.3	3.1	± 7.5	In Tolerance	17	1.5
6	D17852	1000	999.1	996.9	2.2	± 3.9	In Tolerance	17	1.5
		1500	1499.7	1497.9	1.8	± 5.9	In Tolerance	17	1.5
		1900	1901.4	1898.9	2.5	± 7.5	In Tolerance	17	1.5
7	D17853	1000	1000.6	997.4	3.2	± 3.9	In Tolerance	17	1.5
		1500	1501.4	1498.5	2.9	± 5.9	In Tolerance	17	1.5
		1900	1900.0	1897.5	2.5	± 7.5	In Tolerance	17	1.5

Remarks: Calibrated Prior To Final Assembly

The correction must be added algebraically to the UUT reading to obtain the correct value.

ID Number	Manufacturer	Model	Equipment and Standards Used	Description	Calibration Due
03-2787	Agilent	3458A			08/31/2018
03-3471	Pyromation	SPEC 621-00		8 1/2 Digit Digital Multimeter	04/09/2018
03-3472	Pyromation	SPEC 621-00		Type S Reference Standard	04/10/2018
03-3474	Pyromation	SPEC 621-00		Type S Reference Standard	04/10/2018
				Type S Reference Standard	

Environmental Conditions at time of Calibration:

Temperature: 23 °C [73 °F]

Relative Humidity: 13%

Procedure Used: WI-625-36 Rev 4 which is based, in part on ASTM E220-13

As Found: In Tolerance

As Left: In Tolerance

Calibration performed by: Lindi Bunn, Metrology Technician

The temperatures written in this report are those defined by the International Temperature Scale of 1990 (ITS-90).

The combined standard uncertainty includes the standard uncertainty reported for the standard, and the measurement process. No allowance is included in the uncertainty for thermocouple drift and percent. The expanded uncertainty presented in this report is consistent with the JCGM100:2008 Guide to the Expression of Uncertainty in Measurement. The expanded uncertainty is not to be confused with a tolerance limit for the user during application. Uncertainties are not included in the determination of acceptance.

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded in accordance with the rounding method of ASTM Practice E29-13.

The standards of Pyromation Laboratory are traceable to the International System of Units (SI) through NIST or other National Metrology Institute, and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The laboratory report number identified above is the unique report number to be used in referencing measurement traceability for the items identified in this report only.

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Report of Calibration

 **pyromation**[®]
beyond measure
5211 Industrial Road, Fort Wayne, IN 46825
www.pyromation.com 260.484.2580

Report Number: 89438

Calibration Date: 03/04/2020

Submitted By: Bmd Madison, GA 30650
PO Number: 767593

SO Number: 1337013

Type K Thermocouple
K8RMZ-12-0,341,(Z233)

Tolerance: ASTM E230/E230M-17 Special Tolerance

Item	Serial No	Target (°F)	Actual (°F)	Reading (°F)	Correction (°F)	Tolerance (°F)	Status	Immersion (in)	Uncertainty (°F)
1	DEC6FD	1000	1000.6	998.6	2.0	± 4.0	In Tolerance	17	1.5
		1500	1500.3	1499.0	1.3	± 5.9	In Tolerance	17	1.5
		1900	1900.2	1898.6	1.6	± 7.6	In Tolerance	17	1.5
2	DEC6FE	1000	1000.6	998.4	2.2	± 4.0	In Tolerance	17	1.5
		1500	1500.3	1499.9	0.4	± 5.9	In Tolerance	17	1.5
		1900	1900.2	1900.0	0.2	± 7.6	In Tolerance	17	1.5
3	DEC6FF	1000	1000.6	998.6	2.0	± 4.0	In Tolerance	17	1.5
		1500	1500.3	1499.4	0.9	± 5.9	In Tolerance	17	1.5
		1900	1900.2	1898.6	1.6	± 7.6	In Tolerance	17	1.5
4	DEC700	1000	999.7	998.1	1.6	± 4.0	In Tolerance	17	1.5
		1500	1500.0	1498.7	1.3	± 5.9	In Tolerance	17	1.5
		1900	1899.7	1898.4	1.3	± 7.6	In Tolerance	17	1.5
5	DEC701	1000	999.7	997.5	2.2	± 4.0	In Tolerance	17	1.5
		1500	1500.0	1498.7	1.3	± 5.9	In Tolerance	17	1.5
		1900	1899.7	1898.8	0.9	± 7.6	In Tolerance	17	1.5
6	DEC702	1000	999.7	997.9	1.8	± 4.0	In Tolerance	17	1.5
		1500	1500.0	1498.9	1.1	± 5.9	In Tolerance	17	1.5
		1900	1899.7	1899.0	0.7	± 7.6	In Tolerance	17	1.5
7	DEC703	1000	999.7	997.9	1.8	± 4.0	In Tolerance	17	1.5
		1500	1500.0	1498.9	1.1	± 5.9	In Tolerance	17	1.5
		1900	1899.2	1897.9	1.3	± 7.4	In Tolerance	17	1.5

Remarks: Calibrated Prior To Final Assembly.

The correction must be added algebraically to the UUT reading to obtain the correct value.

Equipment and Standards Used				
ID Number	Manufacturer	Model	Description	Calibration Due
03-2787	Agilent	3468A	8 1/2 Digit Digital Multimeter	10/24/2020
03-3471	Pyromation	SPEC 621-00	Type S Reference Standard	06/07/2020
03-3472	Pyromation	SPEC 621-00	Type S Reference Standard	06/07/2020

Environmental Conditions at time of Calibration: Temperature: 23 °C [73 °F] Relative Humidity: 21%

Procedure Used: WI-525-36 Rev 4 which is based, in part on ASTM E220-19

As Found: In Tolerance

As Left: In Tolerance

Calibration performed by: Lindi Bunn, Metrology Technician

The temperatures written in this report are those defined by the International Temperature Scale of 1990 (ITS-90).

The combined standard uncertainty includes the standard uncertainty reported for the standard, and the measurement process. No allowance is included in the uncertainty for thermocouple drift and inhomogeneity. The combined standard uncertainty is multiplied by a coverage factor of 2 to give an expanded uncertainty, which defines an interval having a level of confidence of approximately 95 percent. The expanded uncertainty presented in this report is consistent with the JCGM100:2008 Guide to the Expression of Uncertainty in Measurement. The expanded uncertainty is not to be confused with a tolerance limit for the user during application. Uncertainties are not included in the determination of acceptance.

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded in accordance with the rounding method of ASTM Practice E29-19.

The standards of Pyromation Laboratory are traceable to the International System of Units (SI) through NIST or other National Metrology Institute, and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The laboratory report number identified above is the unique report number to be used in referencing measurement traceability for the items identified in this report only.

This calibration is compliant to ISO/IEC 17025:2017. This calibration report applies only to the items described. It must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Air Protection Branch

4244 International Parkway, Suite 120
Atlanta, Georgia 30354
404-363-7000

MAY 15 2010

MAY 16 2010

MEMORANDUM:

TO: Northeast District (Athens) District
THROUGH: Daniel McCain *DR*
FROM: Marcus Cureton *DR & MC*
SUBJECT: SOURCE TEST REPORT REVIEW

The following test has been reviewed and was conducted in an acceptable fashion for the purpose intended.

COMPANY NAME	C R Bard Inc Madison Operation
COMPANY LOCATION	Madison, GA
SOURCE TESTED	Sterilization Vessel
POLLUTANT DETERMINED	Ethylene Oxide
REPORT REVIEWED BY	Marcus Cureton
TEST WITNESSED BY	Marcus Cureton
DATE(S) OF TEST	January 26, 2018
DATE RECEIVED BY APB	March 29, 2018
MAXIMUM EXPECTED OPERATING CAPACITY	24 UNITS
OPERATING CAPACITY	24 UNITS
ALLOWABLE EMISSION RATE	99 % DRE
APPLICABLE REGULATION	Permit No. 3841-211-0021-S-03-0, Condition 2.3
CONTROL EQUIPMENT AND MONITORING DATA	RTO-1 Chamber temperature: 1449.2 deg. F

TEST RUN #	1	2	3	AVERAGE
GAS TEMPERATURE °F)	Inlet			
	Outlet	237.9	221.3	
GAS MOISTURE %)	Inlet			
	Outlet	3.7	4.2	
GAS FLOW RATE ACFM)	Inlet			
	Outlet			
GAS FLOW RATE DSCFM)	Inlet			
	Outlet	18000	18700	
POLLUTANT CONCENTRATION PPM)	Inlet			
	Outlet	0.7	0.7	
EMISSION RATE LB/MIN)	Inlet	3.8947	3.675	3.974
	Outlet	0.0000206	0.0000214	0.0000212
DESTRUCTION EFFICIENCY (%)	99.9995			
OTHER INFORMATION	N/A			



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
404-363-7000

MAY 15 2010
MAY 16 2010
(Signature)

MEMORANDUM:

TO: Northeast District (Athens) District
THROUGH: Daniel McCain *DA*
FROM: Marcus Cureton *MC*
SUBJECT: SOURCE TEST REPORT REVIEW

The following test has been reviewed and was conducted in an acceptable fashion for the purpose intended.

COMPANY NAME	C R Bard Inc Madison Operation		
COMPANY LOCATION	Madison, GA		
SOURCE TESTED	Areaton Cells		
POLLUTANT DETERMINED	Ethylene Oxide		
REPORT REVIEWED BY	Marcus Cureton		
TEST WITNESSED BY	Marcus Cureton		
DATE(S) OF TEST	January 25, 2018		
DATE RECEIVED BY APB	March 29, 2018		
MAXIMUM EXPECTED OPERATING CAPACITY	225 UNITS		
OPERATING CAPACITY	177 UNITS		
ALLOWABLE EMISSION RATE	1 PPM ; 99 % DRE		
APPLICABLE REGULATION	Permit No. 3841-211-0021-S-03-0, Condition 2.4		
CONTROL EQUIPMENT AND MONITORING DATA	RTO-1 Chamber temperature: 1403 deg. F		

TEST RUN #	1	2	3	AVERAGE
GAS TEMPERATURE °F)	Inlet			
	Outlet			
GAS MOISTURE %)	Inlet			
	Outlet			
GAS FLOW RATE ACFM)	Inlet			
	Outlet			
GAS FLOW RATE DSCFM)	Inlet			
	Outlet			
POLLUTANT CONCENTRATION PPM)	Inlet	59.0	91.7	78.7
	Outlet	0.083	0.52	0.265
EMISSION RATE N/A)	Inlet			0
	Outlet			0
DESTRUCTION EFFICIENCY (%)	99.7			
OTHER INFORMATION	N/A			

Madison RTO Inventory list

Manufacturer	Item Description (Model #)	Part No.	Vendor	Place Used	Quantity in Stock
Antunes Controls	Gas Train Low Gas Pressure Switch, LGP-G, 5-30" WC	8104118005 (or 8101111407)		RTO - Gas Train / Burner	2
Antunes Controls	Gas Train High Gas Pressure Switch, HGP-G, 10-60" WC	810211304 (or 8103116304)		RTO - Gas Train / Burner	2
ASCO	Gas Train 1/2" Pilot Solenoid Valve, N.C., Silicone Free	X8214G201855		RTO - Gas Train / Burner	4
Baldor	Oxidizer Exhaust Fan Motor, 125 HP, 1800 RPM, 460V/3PH/60Hz, 444T Frame	M4410T-4		RTO - Fans	1
Brad Harrison	Connector Cord, for use w/ UV Scanner, 20 ft			RTO - Gas Train / Burner	1
Durr Proprietary	Metaline Bearings, 2-1/2" ID x 3-1/4" OD x 1-1/2" LG	105000A01F200		RTO - Gas Train / Burner	1
Dwyer	Differential Pressure Switch, Explosion Proof 0.4-1.6" W.C. 15 AMPS at 125V/AC	BR130		RTO - Electric Drive Sys.	1
Dwyer	Differential Pressure Switch, Explosion Proof, 3-11" W.C., SPDT 120VAC, 15 AMP	1950-1 (or 1950-1-2F)		RTO - Instrumentation	1
Firesstone	Pneumatic Stroke Actuator, Series 19	W01-358-7008		RTO - Instrumentation	1
Heuck	Combustion Air Blower, used with 7.5 HP TECO Motor, TBA12-7.5-T-3	18577X030		RTO - Gas Train / Burner	1
Honeywell	UV Scanner, Purple Peeker, with Brad Harrison Quick Connect #41310	C7061A1038		RTO - Gas Train / Burner	1
Honeywell	UV Peepers	C7061-1038	Stromquist	RTO - Gas Train / Burner	1
Honeywell	UV Amplifier	R7361	Stromquist	RTO - Gas Train / Burner	1
Honeywell	Gas Valve Modulating Actuator	M7285A1003		RTO - Gas Train / Burner	2
Honeywell	Monitor Charts	DR 45 AT-1100-00-01-0-00000-0	Stromquist	RTO - Gas Train/Burner	1
NAO	Flame Arrestors, 4" Inline, 6-3/4" Long, 304 SS	4"NFA-FT (serial# -53859)		RTO - Instrumentation	1
NoShok	Pneumatic Gauge, 2-1/2" Dia. Face, 0-160 psig	25-110-160		RTO - Electric Drive Sys.	1
Parker	Pneumatic Electronic sensor/Readout, with 4-20mA Outputs	MPS-F31N-PGI		RTO - Electric Drive Sys.	2
Parker Pneumatic	Pressure sensor	MPS-P32N-PGI		RTO - Compressed Air Monitoring	1
Radius	Fresh air Damper Actuator, Pneumatic Spring Return, for 80psi Air supply	AS-020A-SR16		RTO - Damper	1
Radius	Fresh air Damper Actuator Positioner, for 4-20mA Input Signal (RX-1000)	YT-1000RDM532		RTO - Damper	1
Radius	Process Isolation Damper Actuator, Pneumatic Spring Return, for 80psi air supply	AS-030A-SR16		RTO - Damper	1
Raychem	Heat Trace Tapes for RTO Flame Arrestors	W51-12P		RTO Flame Arrestors	6
Sensus	Gas Train Main Gas Regulator 2", Orange Spring, 1" Orifice	243-12-2		RTO - Gas Train / Burner	1
SEW Eurodrive	Movidrive Variable Frequency Drive, with following items below:	<DX61B0030-5A3-4-00		RTO - Electric Drive Sys.	1
Swagelok	1/2" S/S Needle valve	SS12NKRF8	Swagelok	Drum manifold EO line	1
TECO - Westinghouse	Combustion Blower Motor 7.5 HP	B4550050002		RTO - Gas Train / Burner	1
Timken	Tapered Roller Bearing, Cone: JW 7049, Cuyp: JW 7010	P7CVB156C		RTO - Electric Drive Sys.	2
Yaskawa	VFD P7, 125 HP, 480VAC, 3PH, 4-20mA	ETC617190		RTO - VFD	1
Yaskawa	VFD Gate Drive PCB			RTO - VFD	1

Madison RTO Inventory list

Manufacturer	Item Description (Model #)	Part No.	Vendor	Place Used	Quantity in Stock
Yaskawa	VFD Control PCB	ETC618022-S3105		RTO - VFD	1
Yaskawa	VFD Terminal PCB	ETC618141		RTO - VFD	1
Yaskawa	VFD Diode Module	SID003117 (D1,D2)		RTO - VFD	1
Yaskawa	VFD Transistor Module	STR001294 (Q1-Q3)		RTO - VFD	1
Yaskawa	VFD DC Bus Fuse	FU-002112 (F1)		RTO - VFD	1

Madison RTO Oxidation Temp May 23-June 5 2020

Date/Time	24hr Average Temp. ¹ (°F)	Chamber Temp. ² (°F)	Min 24-Hr Avg	Min Chamber Temp	RTO Off-line Time	Notes
						¹ 24 hour average of combustion chamber Temp
						² Average of 3 Combustion Chamber TCs
5/22/2020 23:45	835.4	1487.8				
5/23/2020 0:00	848.5	1493.8				
5/23/2020 0:15	874.1	1478.3				
5/23/2020 0:30	899.8	1485.9				
5/23/2020 0:45	925.5	1523.0				
5/23/2020 1:00	951.5	1488.8				
5/23/2020 1:15	977.4	1525.3				
5/23/2020 1:30	1003.2	1485.3				
5/23/2020 1:45	1029.1	1472.0				
5/23/2020 2:00	1054.8	1498.0				
5/23/2020 2:15	1080.8	1529.5				
5/23/2020 2:30	1106.7	1469.0				
5/23/2020 2:45	1132.1	1475.7				
5/23/2020 3:00	1157.9	1486.8				
5/23/2020 3:15	1183.7	1484.4				
5/23/2020 3:30	1209.6	1520.8				
5/23/2020 3:45	1235.4	1524.9				
5/23/2020 4:00	1240.6	1495.8				
5/23/2020 4:15	1245.6	1480.5				
5/23/2020 4:30	1250.0	1477.7				
5/23/2020 4:45	1254.8	1480.7				
5/23/2020 5:00	1259.3	1518.5				
5/23/2020 5:15	1263.7	1524.0				
5/23/2020 5:30	1267.9	1512.9				
5/23/2020 5:45	1271.7	1477.5				
5/23/2020 6:00	1275.1	1469.6				
5/23/2020 6:15	1278.2	1459.2				
5/23/2020 6:30	1281.3	1467.7				
5/23/2020 6:45	1284.3	1465.7				
5/23/2020 7:00	1287.2	1467.3				
5/23/2020 7:15	1290.0	1474.4				
5/23/2020 7:30	1292.7	1479.5				
5/23/2020 7:45	1295.4	1470.7				
5/23/2020 8:00	1297.9	1461.6				
5/23/2020 8:15	1300.4	1485.4				
5/23/2020 8:30	1303.1	1478.0				
5/23/2020 8:45	1305.5	1467.6				
5/23/2020 9:00	1307.8	1476.1				
5/23/2020 9:15	1310.1	1496.6				
5/23/2020 9:30	1312.4	1474.6				
5/23/2020 9:45	1314.5	1486.5				
5/23/2020 10:00	1316.6	1466.6				
5/23/2020 10:15	1318.5	1471.6				
5/23/2020 10:30	1320.5	1475.5				
5/23/2020 10:45	1322.4	1472.6				
5/23/2020 11:00	1324.3	1469.8				
5/23/2020 11:15	1326.1	1475.6				

RTO Shutdown for Maintenance

Madison RTO Oxidation Temp May 23-June 5 2020

5/23/2020 11:30	1469.5	1469.0				
5/23/2020 11:45	1469.4	1484.0				
5/23/2020 12:00	1485.9	1499.2				
5/23/2020 12:15	1484.7	1465.2				
5/23/2020 12:30	1480.9	1477.8				
5/23/2020 12:45	1485.9	1529.6				
5/23/2020 13:00	1490.1	1495.4				
5/23/2020 13:15	1491.8	1485.3				
5/23/2020 13:30	1493.0	1457.1				
5/23/2020 13:45	1491.1	1496.7				
5/23/2020 14:00	1492.7	1526.9				
5/23/2020 14:15	1494.1	1471.6				
5/23/2020 14:30	1495.2	1469.7				
5/23/2020 14:45	1496.0	1531.1				
5/23/2020 15:00	1496.6	1528.3				
5/23/2020 15:15	1497.3	1531.6				
5/23/2020 15:30	1497.8	1524.1				
5/23/2020 15:45	1498.3	1481.8				
5/23/2020 16:00	1498.6	1478.2				
5/23/2020 16:15	1498.8	1491.9				
5/23/2020 16:30	1499.1	1513.5				
5/23/2020 16:45	1499.5	1535.3				
5/23/2020 17:00	1499.8	1490.5				
5/23/2020 17:15	1500.0	1485.6				
5/23/2020 17:30	1500.1	1508.5				
5/23/2020 17:45	1500.4	1503.3				
5/23/2020 18:00	1500.6	1479.8				
5/23/2020 18:15	1500.8	1522.7				
5/23/2020 18:30	1500.9	1533.1				
5/23/2020 18:45	1501.1	1492.1				
5/23/2020 19:00	1501.2	1525.4				
5/23/2020 19:15	1500.7	1470.0				
5/23/2020 19:30	1500.2	1505.6				
5/23/2020 19:45	1500.6	1498.0				
5/23/2020 20:00	1500.6	1519.4				
5/23/2020 20:15	1500.9	1525.3				
5/23/2020 20:30	1501.1	1496.5				
5/23/2020 20:45	1501.2	1479.9				
5/23/2020 21:00	1501.2	1524.1				
5/23/2020 21:15	1501.3	1533.8				
5/23/2020 21:30	1501.4	1495.2				
5/23/2020 21:45	1501.4	1526.3				
5/23/2020 22:00	1501.6	1507.0				
5/23/2020 22:15	1501.8	1555.3				
5/23/2020 22:30	1503.6	1500.9				
5/23/2020 22:45	1503.8	1572.4				
5/23/2020 23:00	1503.9	1525.8				
5/23/2020 23:15	1504.1	1522.6				
5/23/2020 23:30	1504.7	1501.4				
5/23/2020 23:45	1504.8	1540.1				
5/24/2020 0:00	1504.8	1520.8				
5/24/2020 0:15	1504.8	1511.8				
5/24/2020 0:30	1505.2	1547.7				
5/24/2020 0:45	1506.0	1494.4				
5/24/2020 1:00	1506.3	1525.7				

Madison RTO Oxidation Temp May 23-June 5 2020

5/24/2020 1:15	1506.4	1500.9				
5/24/2020 1:30	1506.3	1475.7				
5/24/2020 1:45	1506.3	1511.4				
5/24/2020 2:00	1506.4	1530.1				
5/24/2020 2:15	1506.5	1465.0				
5/24/2020 2:30	1506.6	1495.0				
5/24/2020 2:45	1506.5	1494.7				
5/24/2020 3:00	1506.6	1533.2				
5/24/2020 3:15	1506.7	1471.5				
5/24/2020 3:30	1506.7	1533.7				
5/24/2020 3:45	1506.6	1492.9				
5/24/2020 4:00	1506.6	1476.9				
5/24/2020 4:15	1506.6	1520.6				
5/24/2020 4:30	1506.7	1539.1				
5/24/2020 4:45	1506.6	1476.5				
5/24/2020 5:00	1506.7	1448.5			15	RTO Damper Closed -Emissions Held Until RTO Returned to Operating Temperature
5/24/2020 5:15	1506.6	1475.2				
5/24/2020 5:30	1506.2	1520.5				
5/24/2020 5:45	1506.1	1525.7				
5/24/2020 6:00	1506.2	1473.8				
5/24/2020 6:15	1506.2	1485.2				
5/24/2020 6:30	1506.3	1532.1				
5/24/2020 6:45	1506.3	1509.6				
5/24/2020 7:00	1506.2	1503.9				
5/24/2020 7:15	1506.2	1479.3				
5/24/2020 7:30	1506.2	1526.6				
5/24/2020 7:45	1506.2	1524.8				
5/24/2020 8:00	1506.2	1456.6				
5/24/2020 8:15	1505.9	1497.9				
5/24/2020 8:30	1505.8	1528.3				
5/24/2020 8:45	1505.8	1472.9				
5/24/2020 9:00	1505.8	1466.4				
5/24/2020 9:15	1505.8	1489.8				
5/24/2020 9:30	1505.8	1493.1				
5/24/2020 9:45	1505.8	1503.5				
5/24/2020 10:00	1505.8	1523.9				
5/24/2020 10:15	1505.8	1513.3				
5/24/2020 10:30	1505.8	1505.3				
5/24/2020 10:45	1505.8	1507.6				
5/24/2020 11:00	1505.8	1498.1				
5/24/2020 11:15	1505.8	1501.0				
5/24/2020 11:30	1505.9	1538.9				
5/24/2020 11:45	1506.9	1486.0				
5/24/2020 12:00	1506.8	1529.4				
5/24/2020 12:15	1507.0	1495.2				
5/24/2020 12:30	1507.6	1535.5				
5/24/2020 12:45	1508.6	1537.2				
5/24/2020 13:00	1508.6	1561.8				
5/24/2020 13:15	1508.7	1527.5				
5/24/2020 13:30	1508.8	1532.9				
5/24/2020 13:45	1509.2	1563.8				
5/24/2020 14:00	1510.0	1527.0				
5/24/2020 14:15	1509.9	1555.9				
5/24/2020 14:30	1509.8	1483.5				

Madison RTO Oxidation Temp May 23-June 5 2020

5/24/2020 14:45	1509.7	1497.8				
5/24/2020 15:00	1509.7	1507.5				
5/24/2020 15:15	1509.7	1527.1				
5/24/2020 15:30	1509.8	1515.5				
5/24/2020 15:45	1509.9	1485.5				
5/24/2020 16:00	1509.9	1517.8				
5/24/2020 16:15	1509.9	1518.9				
5/24/2020 16:30	1510.0	1472.2				
5/24/2020 16:45	1510.0	1503.8				
5/24/2020 17:00	1510.0	1523.4				
5/24/2020 17:15	1510.0	1505.6				
5/24/2020 17:30	1510.1	1499.0				
5/24/2020 17:45	1510.1	1525.7				
5/24/2020 18:00	1510.1	1481.4				
5/24/2020 18:15	1510.1	1472.1				
5/24/2020 18:30	1510.1	1463.1				
5/24/2020 18:45	1509.8	1512.9				
5/24/2020 19:00	1509.9	1516.9				
5/24/2020 19:15	1510.1	1535.4				
5/24/2020 19:30	1510.6	1564.9				
5/24/2020 19:45	1510.7	1512.2				
5/24/2020 20:00	1510.8	1553.7				
5/24/2020 20:15	1510.7	1536.1				
5/24/2020 20:30	1510.7	1526.3				
5/24/2020 20:45	1510.7	1478.8				
5/24/2020 21:00	1510.7	1516.1				
5/24/2020 21:15	1510.8	1472.9				
5/24/2020 21:30	1510.8	1534.5				
5/24/2020 21:45	1510.8	1496.2				
5/24/2020 22:00	1510.7	1523.3				
5/24/2020 22:15	1510.6	1509.7				
5/24/2020 22:30	1509.7	1492.6				
5/24/2020 22:45	1509.5	1528.3				
5/24/2020 23:00	1509.4	1511.8				
5/24/2020 23:15	1509.4	1535.2				
5/24/2020 23:30	1509.1	1500.7				
5/24/2020 23:45	1509.1	1496.9				
5/25/2020 0:00	1486.7	1487.5				
5/25/2020 0:15	1507.2	1535.3				
5/25/2020 0:30	1507.5	1495.5				
5/25/2020 0:45	1517.1	1585.8				
5/25/2020 1:00	1520.4	1529.0				
5/25/2020 1:15	1519.8	1495.0				
5/25/2020 1:30	1517.1	1500.3				
5/25/2020 1:45	1515.5	1507.6				
5/25/2020 2:00	1515.0	1481.6				
5/25/2020 2:15	1513.0	1529.7				
5/25/2020 2:30	1512.3	1506.6				
5/25/2020 2:45	1511.7	1515.0				
5/25/2020 3:00	1511.4	1522.9				
5/25/2020 3:15	1511.1	1469.8				
5/25/2020 3:30	1510.5	1506.4				
5/25/2020 3:45	1510.3	1502.1				
5/25/2020 4:00	1510.0	1519.5				
5/25/2020 4:15	1509.8	1533.4				

Madison RTO Oxidation Temp May 23-June 5 2020

5/25/2020 4:30	1509.5	1532.5				
5/25/2020 4:45	1509.3	1539.9				
5/25/2020 5:00	1509.1	1511.4				
5/25/2020 5:15	1509.6	1566.6				
5/25/2020 5:30	1510.9	1540.3				
5/25/2020 5:45	1511.0	1504.9				
5/25/2020 6:00	1510.9	1465.9				
5/25/2020 6:15	1510.7	1538.7				
5/25/2020 6:30	1510.2	1463.5				
5/25/2020 6:45	1509.7	1526.1				
5/25/2020 7:00	1509.5	1465.5				
5/25/2020 7:15	1509.3	1537.3				
5/25/2020 7:30	1509.3	1535.3				
5/25/2020 7:45	1509.2	1495.9				
5/25/2020 8:00	1510.6	1535.6				
5/25/2020 8:15	1510.4	1535.7				
5/25/2020 8:30	1510.5	1474.4				
5/25/2020 8:45	1510.2	1496.8				
5/25/2020 9:00	1510.2	1471.4				
5/25/2020 9:15	1510.1	1463.0				
5/25/2020 9:30	1509.9	1489.1				
5/25/2020 9:45	1509.8	1523.0				
5/25/2020 10:00	1509.7	1475.4				
5/25/2020 10:15	1509.6	1526.8				
5/25/2020 10:30	1509.5	1483.1				
5/25/2020 10:45	1509.4	1508.0				
5/25/2020 11:00	1508.7	1508.1				
5/25/2020 11:15	1508.7	1498.5				
5/25/2020 11:30	1508.6	1527.1				
5/25/2020 11:45	1508.6	1514.1				
5/25/2020 12:00	1508.5	1520.3				
5/25/2020 12:15	1508.5	1491.7				
5/25/2020 12:30	1508.4	1513.0				
5/25/2020 12:45	1508.4	1530.3				
5/25/2020 13:00	1508.3	1478.2				
5/25/2020 13:15	1509.1	1578.0				
5/25/2020 13:30	1509.1	1487.7				
5/25/2020 13:45	1509.2	1548.3				
5/25/2020 14:00	1509.1	1471.1				
5/25/2020 14:15	1509.1	1536.4				
5/25/2020 14:30	1509.0	1489.6				
5/25/2020 14:45	1508.5	1483.8				
5/25/2020 15:00	1508.5	1497.7				
5/25/2020 15:15	1508.4	1506.2				
5/25/2020 15:30	1508.3	1512.9				
5/25/2020 15:45	1508.4	1528.2				
5/25/2020 16:00	1508.5	1538.7				
5/25/2020 16:15	1508.9	1492.6				
5/25/2020 16:30	1508.8	1497.6				
5/25/2020 16:45	1508.8	1496.9				
5/25/2020 17:00	1460.0	1475.0				
5/25/2020 17:15	1460.0	1475.0				
5/25/2020 17:30	1460.0	1475.0				
5/25/2020 17:45	1460.0	1475.0				
5/25/2020 18:00	1460.0	1475.0				

Madison RTO Oxidation Temp May 23-June 5 2020

5/25/2020 18:15	1460.0	1475.0				
5/25/2020 18:30	1460.0	1475.0				
5/25/2020 18:45	1460.0	1475.0				
5/25/2020 19:00	1460.0	1475.0				
5/25/2020 19:15	1460.0	1475.0				
5/25/2020 19:30	1460.0	1475.0				
5/25/2020 19:45	1460.0	1475.0				
5/25/2020 20:00	1460.0	1475.0				
5/25/2020 20:15	1460.0	1475.0				
5/25/2020 20:30	1460.0	1475.0				
5/25/2020 20:45	1460.0	1475.0				
5/25/2020 21:00	1460.0	1475.0				
5/25/2020 21:15	1460.0	1475.0				
5/25/2020 21:30	1460.0	1475.0				
5/25/2020 21:45	1460.0	1475.0				
5/25/2020 22:00	1460.0	1475.0				
5/25/2020 22:15	1460.0	1475.0				
5/25/2020 22:30	1460.0	1475.0				
5/25/2020 22:45	1460.0	1475.0				
5/25/2020 23:00	1460.0	1475.0				
5/25/2020 23:15	1460.0	1475.0				
5/25/2020 23:30	1460.0	1475.0				
5/25/2020 23:45	1460.0	1475.0				
5/26/2020 0:00	1460.0	1475.0				
5/26/2020 0:15	1460.0	1475.0				
5/26/2020 0:30	1460.0	1475.0				
5/26/2020 0:45	1460.0	1475.0				
5/26/2020 1:00	1460.0	1475.0				
5/26/2020 1:15	1460.0	1475.0				
5/26/2020 1:30	1460.0	1475.0				
5/26/2020 1:45	1460.0	1475.0				
5/26/2020 2:00	1460.0	1475.0				
5/26/2020 2:15	1460.0	1475.0				
5/26/2020 2:30	1460.0	1475.0				
5/26/2020 2:45	1460.0	1475.0				
5/26/2020 3:00	1460.0	1475.0				
5/26/2020 3:15	1460.0	1475.0				
5/26/2020 3:30	1460.0	1475.0				
5/26/2020 3:45	1460.0	1475.0				
5/26/2020 4:00	1460.0	1475.0				
5/26/2020 4:15	1460.0	1475.0				
5/26/2020 4:30	1460.0	1475.0				
5/26/2020 4:45	1460.0	1475.0				
5/26/2020 5:00	1460.0	1475.0				
5/26/2020 5:15	1460.0	1475.0				
5/26/2020 5:30	1460.0	1475.0				
5/26/2020 5:45	1460.0	1475.0				
5/26/2020 6:00	1460.0	1475.0				
5/26/2020 6:15	1460.0	1475.0				
5/26/2020 6:30	1460.0	1475.0				
5/26/2020 6:45	1460.0	1475.0				
5/26/2020 7:00	1460.0	1475.0				
5/26/2020 7:15	1508.1	1513.8				
5/26/2020 7:30	1508.0	1524.9				
5/26/2020 7:45	1508.1	1485.8				

Madison RTO Oxidation Temp May 23-June 5 2020

5/26/2020 8:00	1506.7	1525.4				
5/26/2020 8:15	1506.8	1535.7				
5/26/2020 8:30	1506.6	1500.7				
5/26/2020 8:45	1506.7	1499.6				
5/26/2020 9:00	1506.8	1532.8				
5/26/2020 9:15	1506.9	1532.5				
5/26/2020 9:30	1506.8	1527.4				
5/26/2020 9:45	1507.2	1537.7				
5/26/2020 10:00	1507.5	1473.0				
5/26/2020 10:15	1507.6	1509.6				
5/26/2020 10:30	1507.6	1479.3				
5/26/2020 10:45	1507.5	1505.3				
5/26/2020 11:00	1508.5	1478.5				
5/26/2020 11:15	1508.4	1491.5				
5/26/2020 11:30	1508.5	1523.6				
5/26/2020 11:45	1508.4	1491.9				
5/26/2020 12:00	1508.4	1538.9				
5/26/2020 12:15	1508.3	1527.5				
5/26/2020 12:30	1508.4	1488.2				
5/26/2020 12:45	1508.2	1525.9				
5/26/2020 13:00	1508.1	1509.0				
5/26/2020 13:15	1507.1	1539.4				
5/26/2020 13:30	1507.0	1534.8				
5/26/2020 13:45	1506.9	1528.0				
5/26/2020 14:00	1507.0	1518.7				
5/26/2020 14:15	1506.8	1501.3				
5/26/2020 14:30	1507.9	1530.8				
5/26/2020 14:45	1508.3	1478.1				
5/26/2020 15:00	1499.6	1481.3				
5/26/2020 15:15	1496.7	1523.8				
5/26/2020 15:30	1499.0	1487.8				
5/26/2020 15:45	1500.8	1473.3				
5/26/2020 16:00	1501.5	1483.3				
5/26/2020 16:15	1502.0	1558.1				
5/26/2020 16:30	1503.9	1487.1				
5/26/2020 16:45	1511.2	1540.2				
5/26/2020 17:00	1511.2	1507.2				
5/26/2020 17:15	1510.8	1475.1				
5/26/2020 17:30	1510.5	1478.7				
5/26/2020 17:45	1510.3	1520.4				
5/26/2020 18:00	1510.0	1516.5				
5/26/2020 18:15	1509.9	1481.9				
5/26/2020 18:30	1509.6	1511.4				
5/26/2020 18:45	1509.4	1631.8				
5/26/2020 19:00	1513.9	1477.8				
5/26/2020 19:15	1513.6	1493.1				
5/26/2020 19:30	1513.2	1529.8				
5/26/2020 19:45	1513.0	1512.2				
5/26/2020 20:00	1512.5	1491.7				
5/26/2020 20:15	1512.3	1531.2				
5/26/2020 20:30	1512.3	1501.6				
5/26/2020 20:45	1511.9	1508.3				
5/26/2020 21:00	1511.8	1505.0				
5/26/2020 21:15	1511.5	1523.6				
5/26/2020 21:30	1511.3	1510.8				

Madison RTO Oxidation Temp May 23-June 5 2020

5/26/2020 21:45	1511.1	1535.4				
5/26/2020 22:00	1511.0	1523.0				
5/26/2020 22:15	1510.9	1494.5				
5/26/2020 22:30	1510.7	1502.0				
5/26/2020 22:45	1510.6	1528.8				
5/26/2020 23:00	1510.5	1527.7				
5/26/2020 23:15	1510.5	1550.8				
5/26/2020 23:30	1511.6	1477.6				
5/26/2020 23:45	1510.9	1535.3				
5/27/2020 0:00	1511.0	1481.6				
5/27/2020 0:15	1510.9	1473.1				
5/27/2020 0:30	1510.8	1496.1				
5/27/2020 0:45	1510.7	1501.2				
5/27/2020 1:00	1510.5	1516.7				
5/27/2020 1:15	1510.5	1505.2				
5/27/2020 1:30	1510.3	1541.4				
5/27/2020 1:45	1510.6	1493.8				
5/27/2020 2:00	1510.8	1500.4				
5/27/2020 2:15	1510.9	1491.1				
5/27/2020 2:30	1510.7	1475.3				
5/27/2020 2:45	1510.6	1498.7				
5/27/2020 3:00	1510.6	1494.5				
5/27/2020 3:15	1510.4	1531.0				
5/27/2020 3:30	1510.4	1524.1				
5/27/2020 3:45	1510.3	1506.5				
5/27/2020 4:00	1510.1	1286.7				
5/27/2020 4:15	1508.1	1510.4				
5/27/2020 4:30	1506.9	1502.5				
5/27/2020 4:45	1506.9	1505.5				
5/27/2020 5:00	1506.7	1521.5				
5/27/2020 5:15	1507.0	1526.8				
5/27/2020 5:30	1507.1	1570.7				
5/27/2020 5:45	1507.9	1536.4				
5/27/2020 6:00	1508.2	1501.8				
5/27/2020 6:15	1508.2	1516.0				
5/27/2020 6:30	1508.2	1520.9				
5/27/2020 6:45	1508.1	1480.0				
5/27/2020 7:00	1508.1	1518.9				
5/27/2020 7:15	1508.1	1529.7				
5/27/2020 7:30	1508.1	1480.7				
5/27/2020 7:45	1508.0	1491.8				
5/27/2020 8:00	1508.0	1493.9				
5/27/2020 8:15	1507.6	1516.1				
5/27/2020 8:30	1507.7	1517.6				
5/27/2020 8:45	1507.6	1528.4				
5/27/2020 9:00	1507.6	1482.7				
5/27/2020 9:15	1507.6	1521.1				
5/27/2020 9:30	1507.6	1474.6				
5/27/2020 9:45	1507.6	1514.9				
5/27/2020 10:00	1507.7	1524.8				
5/27/2020 10:15	1507.7	1499.5				
5/27/2020 10:30	1507.6	1474.0				
5/27/2020 10:45	1507.6	1507.2				
5/27/2020 11:00	1507.6	1511.6				

15 RTO Damper Closed -Emissions Held Until RTO
Returned to Operating Temperature

Madison RTO Oxidation Temp May 23-June 5 2020

5/27/2020 11:15	1507.6	1508.4				
5/27/2020 11:30	1507.6	1523.8				
5/27/2020 11:45	1507.6	1508.0				
5/27/2020 12:00	1507.5	1491.6				
5/27/2020 12:15	1507.5	1472.7				
5/27/2020 12:30	1507.5	1468.1				
5/27/2020 12:45	1507.5	1499.4				
5/27/2020 13:00	1507.2	1526.9				
5/27/2020 13:15	1507.2	1513.9				
5/27/2020 13:30	1507.2	1552.8				
5/27/2020 13:45	1507.3	1519.4				
5/27/2020 14:00	1507.7	1528.3				
5/27/2020 14:15	1507.9	1510.0				
5/27/2020 14:30	1507.9	1533.4				
5/27/2020 14:45	1507.9	1519.6				
5/27/2020 15:00	1508.0	1478.1				
5/27/2020 15:15	1508.2	1489.5				
5/27/2020 15:30	1508.2	1504.1				
5/27/2020 15:45	1508.2	1552.7				
5/27/2020 16:00	1508.5	1493.6				
5/27/2020 16:15	1508.6	1499.6				
5/27/2020 16:30	1508.5	1518.5				
5/27/2020 16:45	1507.8	1466.8				
5/27/2020 17:00	1507.7	1524.6				
5/27/2020 17:15	1507.5	1518.0				
5/27/2020 17:30	1507.6	1515.7				
5/27/2020 17:45	1507.5	1494.1				
5/27/2020 18:00	1507.6	1468.8				
5/27/2020 18:15	1507.3	1511.4				
5/27/2020 18:30	1507.3	1527.8				
5/27/2020 18:45	1507.3	1635.1				
5/27/2020 19:00	1506.8	1529.5				
5/27/2020 19:15	1507.7	1524.0				
5/27/2020 19:30	1507.7	1505.0				
5/27/2020 19:45	1507.7	1524.4				
5/27/2020 20:00	1507.7	1576.1				
5/27/2020 20:15	1507.9	1494.5				
5/27/2020 20:30	1508.5	1535.0				
5/27/2020 20:45	1508.6	1485.9				
5/27/2020 21:00	1508.6	1474.1				
5/27/2020 21:15	1508.6	1466.2				
5/27/2020 21:30	1508.5	1525.4				
5/27/2020 21:45	1508.3	1528.9				
5/27/2020 22:00	1508.4	1504.2				
5/27/2020 22:15	1508.4	1515.4				
5/27/2020 22:30	1508.5	1503.5				
5/27/2020 22:45	1508.5	1506.7				
5/27/2020 23:00	1508.5	1487.8				
5/27/2020 23:15	1508.5	1536.9				
5/27/2020 23:30	1508.1	1530.5				
5/27/2020 23:45	1508.3	1477.7				
5/28/2020 0:00	1511.8	1511.0				
5/28/2020 0:15	1471.3	1474.2				
5/28/2020 0:30	1486.2	1509.5				
5/28/2020 0:45	1494.3	1529.0				

Madison RTO Oxidation Temp May 23-June 5 2020

5/28/2020 1:00	1496.7	1488.3				
5/28/2020 1:15	1498.9	1488.4				
5/28/2020 1:30	1499.8	1474.6				
5/28/2020 1:45	1500.9	1480.8				
5/28/2020 2:00	1501.3	1485.8				
5/28/2020 2:15	1501.8	1505.1				
5/28/2020 2:30	1502.3	1519.7				
5/28/2020 2:45	1502.9	1541.4				
5/28/2020 3:00	1507.8	1480.9				
5/28/2020 3:15	1508.2	1552.0				
5/28/2020 3:30	1507.6	1463.0				
5/28/2020 3:45	1506.9	1525.1				
5/28/2020 4:00	1506.9	1497.1				
5/28/2020 4:15	1506.1	1474.6				
5/28/2020 4:30	1506.2	1530.8				
5/28/2020 4:45	1506.1	1534.6				
5/28/2020 5:00	1506.1	1441.8				
5/28/2020 5:15	1505.8	1487.3				
5/28/2020 5:30	1505.9	1532.7				
5/28/2020 5:45	1505.3	1465.0				
5/28/2020 6:00	1504.1	1503.3				
5/28/2020 6:15	1504.3	1503.9				
5/28/2020 6:30	1504.8	1524.3				
5/28/2020 6:45	1505.0	1497.8				
5/28/2020 7:00	1505.1	1491.5				
5/28/2020 7:15	1505.1	1475.1				
5/28/2020 7:30	1505.2	1533.1				
5/28/2020 7:45	1505.3	1536.9				
5/28/2020 8:00	1505.3	1489.3				
5/28/2020 8:15	1505.3	1518.4				
5/28/2020 8:30	1505.4	1489.5				
5/28/2020 8:45	1505.2	1511.0				
5/28/2020 9:00	1505.2	1516.5				
5/28/2020 9:15	1505.3	1490.1				
5/28/2020 9:30	1505.4	1521.0				
5/28/2020 9:45	1506.2	1527.5				
5/28/2020 10:00	1506.2	1502.9				
5/28/2020 10:15	1506.2	1513.1				
5/28/2020 10:30	1505.7	1538.1				
5/28/2020 10:45	1505.9	1522.3				
5/28/2020 11:00	1505.9	1533.0				
5/28/2020 11:15	1505.9	1553.1				
5/28/2020 11:30	1505.9	1521.5				
5/28/2020 11:45	1506.0	1474.5				
5/28/2020 12:00	1506.0	1471.9				
5/28/2020 12:15	1506.0	1528.5				
5/28/2020 12:30	1506.2	1516.2				
5/28/2020 12:45	1506.3	1544.5				
5/28/2020 13:00	1507.3	1497.8				
5/28/2020 13:15	1507.3	1523.6				
5/28/2020 13:30	1507.4	1505.6				
5/28/2020 13:45	1507.3	1533.3				
5/28/2020 14:00	1507.3	1517.0				
5/28/2020 14:15	1507.4	1537.9				

15 RTO Damper Closed -Emissions Held Until RTO
Returned to Operating Temperature

Madison RTO Oxidation Temp May 23-June 5 2020

5/28/2020 14:30	1507.4	1513.6				
5/28/2020 14:45	1507.5	1532.3				
5/28/2020 15:00	1507.5	1509.8				
5/28/2020 15:15	1507.5	1507.4				
5/28/2020 15:30	1507.4	1519.5				
5/28/2020 15:45	1507.3	1499.5				
5/28/2020 16:00	1507.4	1476.3				
5/28/2020 16:15	1507.4	1500.1				
5/28/2020 16:30	1507.3	1519.0				
5/28/2020 16:45	1507.3	1508.2				
5/28/2020 17:00	1507.3	1503.7				
5/28/2020 17:15	1507.3	1515.7				
5/28/2020 17:30	1507.3	1484.5				
5/28/2020 17:45	1507.3	1512.0				
5/28/2020 18:00	1507.2	1495.9				
5/28/2020 18:15	1507.3	1530.9				
5/28/2020 18:30	1507.3	1487.7				
5/28/2020 18:45	1507.2	1525.9				
5/28/2020 19:00	1507.2	1521.7				
5/28/2020 19:15	1507.4	1543.6				
5/28/2020 19:30	1507.4	1507.1				
5/28/2020 19:45	1507.5	1473.4				
5/28/2020 20:00	1507.4	1518.3				
5/28/2020 20:15	1507.4	1516.4				
5/28/2020 20:30	1507.5	1509.5				
5/28/2020 20:45	1507.3	1475.4				
5/28/2020 21:00	1507.3	1505.5				
5/28/2020 21:15	1507.4	1505.8				
5/28/2020 21:30	1507.4	1494.9				
5/28/2020 21:45	1507.4	1519.4				
5/28/2020 22:00	1507.3	1512.7				
5/28/2020 22:15	1507.3	1503.7				
5/28/2020 22:30	1507.3	1482.9				
5/28/2020 22:45	1507.3	1503.2				
5/28/2020 23:00	1507.3	1533.3				
5/28/2020 23:15	1507.3	1508.7				
5/28/2020 23:30	1507.3	1476.6				
5/28/2020 23:45	1507.2	1512.6				
5/29/2020 0:00	1522.1	1522.2				
5/29/2020 0:15	1504.1	1512.3				
5/29/2020 0:30	1506.1	1506.7				
5/29/2020 0:45	1505.8	1482.2				
5/29/2020 1:00	1505.8	1473.0				
5/29/2020 1:15	1506.1	1485.9				
5/29/2020 1:30	1506.0	1511.2				
5/29/2020 1:45	1505.7	1477.2				
5/29/2020 2:00	1506.5	1524.0				
5/29/2020 2:15	1509.6	1535.6				
5/29/2020 2:30	1509.7	1485.3				
5/29/2020 2:45	1510.3	1529.7				
5/29/2020 3:00	1510.6	1479.8				
5/29/2020 3:15	1510.2	1537.0				
5/29/2020 3:30	1510.0	1523.9				
5/29/2020 3:45	1509.6	1489.4				
5/29/2020 4:00	1509.2	1530.7				

Madison RTO Oxidation Temp May 23-June 5 2020

5/29/2020 4:15	1509.1	1480.1				
5/29/2020 4:30	1508.9	1514.5				
5/29/2020 4:45	1512.1	1580.6				
5/29/2020 5:00	1512.2	1503.3				
5/29/2020 5:15	1512.2	1522.1				
5/29/2020 5:30	1512.0	1534.0				
5/29/2020 5:45	1511.8	1480.1				
5/29/2020 6:00	1511.5	1473.5				
5/29/2020 6:15	1511.3	1482.1				
5/29/2020 6:30	1511.1	1483.8				
5/29/2020 6:45	1511.0	1524.0				
5/29/2020 7:00	1510.9	1486.9				
5/29/2020 7:15	1510.7	1504.9				
5/29/2020 7:30	1510.6	1530.7				
5/29/2020 7:45	1510.5	1532.0				
5/29/2020 8:00	1509.9	1489.2				
5/29/2020 8:15	1509.8	1501.5				
5/29/2020 8:30	1509.5	1522.7				
5/29/2020 8:45	1509.5	1481.9				
5/29/2020 9:00	1509.4	1505.7				
5/29/2020 9:15	1509.3	1483.8				
5/29/2020 9:30	1509.3	1534.2				
5/29/2020 9:45	1509.3	1518.8				
5/29/2020 10:00	1509.2	1535.5				
5/29/2020 10:15	1508.9	1478.3				
5/29/2020 10:30	1507.9	1475.2				
5/29/2020 10:45	1507.0	1472.5				
5/29/2020 11:00	1506.1	1471.0				
5/29/2020 11:15	1505.2	1470.9				
5/29/2020 11:30	1504.4	1471.1				
5/29/2020 11:45	1503.6	1472.6				
5/29/2020 12:00	1502.9	1468.9				
5/29/2020 12:15	1502.2	1474.6				
5/29/2020 12:30	1501.5	1472.7				
5/29/2020 12:45	1500.8	1469.1				
5/29/2020 13:00	1500.2	1468.4				
5/29/2020 13:15	1499.5	1472.0				
5/29/2020 13:30	1499.0	1466.6				
5/29/2020 13:45	1498.4	1468.7				
5/29/2020 14:00	1497.8	1469.0				
5/29/2020 14:15	1497.3	1467.1				
5/29/2020 14:30	1496.8	1467.3				
5/29/2020 14:45	1496.6	1551.9				
5/29/2020 15:00	1497.7	1480.6				
5/29/2020 15:15	1497.9	1539.7				
5/29/2020 15:30	1498.0	1539.7				
5/29/2020 15:45	1498.0	1475.2				
5/29/2020 16:00	1497.6	1465.2				
5/29/2020 16:15	1497.1	1464.2				
5/29/2020 16:30	1496.7	1464.2				
5/29/2020 16:45	1496.2	1467.2				
5/29/2020 17:00	1496.3	1563.7				
5/29/2020 17:15	1496.9	1522.4				
5/29/2020 17:30	1497.1	1479.8				
5/29/2020 17:45	1497.2	1489.1				

Madison RTO Oxidation Temp May 23-June 5 2020

5/29/2020 18:00	1497.5	1515.1				
5/29/2020 18:15	1497.5	1513.9				
5/29/2020 18:30	1497.7	1534.3				
5/29/2020 18:45	1497.8	1519.3				
5/29/2020 19:00	1498.0	1500.1				
5/29/2020 19:15	1498.1	1481.1				
5/29/2020 19:30	1498.2	1532.9				
5/29/2020 19:45	1498.3	1498.3				
5/29/2020 20:00	1498.4	1512.9				
5/29/2020 20:15	1498.5	1492.5				
5/29/2020 20:30	1498.6	1491.7				
5/29/2020 20:45	1498.7	1474.8				
5/29/2020 21:00	1498.8	1534.5				
5/29/2020 21:15	1499.4	1642.5				
5/29/2020 21:30	1500.2	1486.4				
5/29/2020 21:45	1500.3	1493.9				
5/29/2020 22:00	1500.3	1488.5				
5/29/2020 22:15	1500.5	1510.6				
5/29/2020 22:30	1500.6	1532.7				
5/29/2020 22:45	1500.6	1497.5				
5/29/2020 23:00	1500.8	1528.4				
5/29/2020 23:15	1500.9	1530.3				
5/29/2020 23:30	1500.9	1498.5				
5/29/2020 23:45	1500.9	1516.8				
5/30/2020 0:00	1497.3	1496.9				
5/30/2020 0:15	1508.2	1518.3				
5/30/2020 0:30	1505.8	1541.8				
5/30/2020 0:45	1506.5	1528.7				
5/30/2020 1:00	1505.9	1525.2				
5/30/2020 1:15	1505.9	1498.6				
5/30/2020 1:30	1507.2	1515.6				
5/30/2020 1:45	1506.1	1517.5				
5/30/2020 2:00	1506.1	1494.0				
5/30/2020 2:15	1506.3	1516.4				
5/30/2020 2:30	1506.6	1529.5				
5/30/2020 2:45	1506.4	1472.7				
5/30/2020 3:00	1506.6	1518.9				
5/30/2020 3:15	1507.2	1550.2				
5/30/2020 3:30	1510.6	1475.1				
5/30/2020 3:45	1510.7	1505.9				
5/30/2020 4:00	1510.5	1496.7				
5/30/2020 4:15	1510.2	1533.1				
5/30/2020 4:30	1510.0	1514.8				
5/30/2020 4:45	1509.7	1478.5				
5/30/2020 5:00	1509.5	1507.4				
5/30/2020 5:15	1509.4	1533.0				
5/30/2020 5:30	1509.4	1528.1				
5/30/2020 5:45	1509.3	1520.3				
5/30/2020 6:00	1509.2	1518.8				
5/30/2020 6:15	1509.2	1466.2				
5/30/2020 6:30	1509.1	1492.7				
5/30/2020 6:45	1509.0	1516.4				
5/30/2020 7:00	1509.3	1534.3				
5/30/2020 7:15	1509.2	1492.9				
5/30/2020 7:30	1509.3	1493.7				

Madison RTO Oxidation Temp May 23-June 5 2020

5/30/2020 7:45	1509.1	1527.2				
5/30/2020 8:00	1508.9	1501.3				
5/30/2020 8:15	1509.0	1499.0				
5/30/2020 8:30	1508.9	1523.0				
5/30/2020 8:45	1508.9	1513.7				
5/30/2020 9:00	1508.9	1496.8				
5/30/2020 9:15	1508.8	1543.0				
5/30/2020 9:30	1508.8	1521.7				
5/30/2020 9:45	1508.8	1518.0				
5/30/2020 10:00	1509.5	1586.4				
5/30/2020 10:15	1510.4	1473.2				
5/30/2020 10:30	1510.3	1479.6				
5/30/2020 10:45	1510.2	1515.2				
5/30/2020 11:00	1510.1	1534.7				
5/30/2020 11:15	1510.0	1531.7				
5/30/2020 11:30	1509.9	1522.3				
5/30/2020 11:45	1509.8	1533.0				
5/30/2020 12:00	1509.8	1512.3				
5/30/2020 12:15	1509.8	1535.0				
5/30/2020 12:30	1510.0	1530.4				
5/30/2020 12:45	1509.9	1500.6				
5/30/2020 13:00	1510.0	1533.7				
5/30/2020 13:15	1509.9	1536.9				
5/30/2020 13:30	1509.8	1513.7				
5/30/2020 13:45	1509.8	1498.7				
5/30/2020 14:00	1509.7	1484.0				
5/30/2020 14:15	1509.6	1526.0				
5/30/2020 14:30	1509.6	1517.6				
5/30/2020 14:45	1509.4	1502.3				
5/30/2020 15:00	1509.4	1479.1				
5/30/2020 15:15	1509.3	1489.5				
5/30/2020 15:30	1509.3	1474.1				
5/30/2020 15:45	1509.3	1525.7				
5/30/2020 16:00	1509.2	1502.0				
5/30/2020 16:15	1509.2	1480.6				
5/30/2020 16:30	1509.2	1491.2				
5/30/2020 16:45	1509.1	1533.3				
5/30/2020 17:00	1509.0	1513.9				
5/30/2020 17:15	1509.0	1480.2				
5/30/2020 17:30	1509.0	1477.1				
5/30/2020 17:45	1509.0	1482.7				
5/30/2020 18:00	1508.9	1488.2				
5/30/2020 18:15	1508.9	1534.3				
5/30/2020 18:30	1508.8	1529.4				
5/30/2020 18:45	1508.8	1516.2				
5/30/2020 19:00	1509.2	1575.3				
5/30/2020 19:15	1509.4	1508.0				
5/30/2020 19:30	1509.4	1535.1				
5/30/2020 19:45	1509.3	1502.5				
5/30/2020 20:00	1509.3	1505.9				
5/30/2020 20:15	1509.3	1497.3				
5/30/2020 20:30	1509.3	1483.6				
5/30/2020 20:45	1509.2	1516.6				
5/30/2020 21:00	1509.2	1502.7				
5/30/2020 21:15	1509.2	1533.6				

Madison RTO Oxidation Temp May 23-June 5 2020

5/30/2020 21:30	1509.1	1527.4				
5/30/2020 21:45	1509.1	1476.8				
5/30/2020 22:00	1509.1	1519.2				
5/30/2020 22:15	1509.1	1533.5				
5/30/2020 22:30	1509.1	1514.9				
5/30/2020 22:45	1509.1	1479.7				
5/30/2020 23:00	1509.1	1504.7				
5/30/2020 23:15	1509.1	1504.4				
5/30/2020 23:30	1509.0	1532.6				
5/30/2020 23:45	1509.0	1522.0				
5/31/2020 0:00	1532.5	1532.5				
5/31/2020 0:15	1508.0	1504.3				
5/31/2020 0:30	1506.4	1538.4				
5/31/2020 0:45	1507.0	1511.5				
5/31/2020 1:00	1506.7	1529.9				
5/31/2020 1:15	1506.5	1510.8				
5/31/2020 1:30	1506.0	1506.6				
5/31/2020 1:45	1506.2	1474.5				
5/31/2020 2:00	1506.4	1490.8				
5/31/2020 2:15	1505.1	1463.1				
5/31/2020 2:30	1501.3	1469.1				
5/31/2020 2:45	1498.2	1471.2				
5/31/2020 3:00	1495.7	1466.4				
5/31/2020 3:15	1493.5	1468.7				
5/31/2020 3:30	1491.7	1467.6				
5/31/2020 3:45	1493.7	1564.7				
5/31/2020 4:00	1494.9	1490.8				
5/31/2020 4:15	1495.6	1499.0				
5/31/2020 4:30	1496.2	1539.9				
5/31/2020 4:45	1496.7	1496.9				
5/31/2020 5:00	1498.6	1582.2				
5/31/2020 5:15	1500.5	1535.9				
5/31/2020 5:30	1501.1	1526.3				
5/31/2020 5:45	1501.1	1529.4				
5/31/2020 6:00	1501.3	1517.2				
5/31/2020 6:15	1501.5	1471.7				
5/31/2020 6:30	1501.7	1477.8				
5/31/2020 6:45	1501.7	1486.5				
5/31/2020 7:00	1501.9	1514.8				
5/31/2020 7:15	1502.5	1519.0				
5/31/2020 7:30	1503.1	1537.4				
5/31/2020 7:45	1503.3	1492.4				
5/31/2020 8:00	1503.3	1502.0				
5/31/2020 8:15	1503.4	1520.5				
5/31/2020 8:30	1505.0	1611.8				
5/31/2020 8:45	1505.8	1513.9				
5/31/2020 9:00	1505.8	1483.7				
5/31/2020 9:15	1505.7	1533.5				
5/31/2020 9:30	1505.8	1505.0				
5/31/2020 9:45	1505.7	1526.7				
5/31/2020 10:00	1505.7	1522.1				
5/31/2020 10:15	1505.7	1512.7				
5/31/2020 10:30	1505.9	1496.7				
5/31/2020 10:45	1505.7	1496.6				
5/31/2020 11:00	1505.7	1530.4				

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5/31/2020 11:15	1505.7	1502.6				
5/31/2020 11:30	1505.8	1527.2				
5/31/2020 11:45	1505.7	1506.5				
5/31/2020 12:00	1505.8	1500.4				
5/31/2020 12:15	1505.8	1510.3				
5/31/2020 12:30	1505.9	1528.7				
5/31/2020 12:45	1505.9	1521.7				
5/31/2020 13:00	1505.6	1472.2				
5/31/2020 13:15	1504.9	1472.9				
5/31/2020 13:30	1504.2	1469.1				
5/31/2020 13:45	1503.6	1471.1				
5/31/2020 14:00	1502.9	1468.2				
5/31/2020 14:15	1502.3	1466.0				
5/31/2020 14:30	1501.7	1467.4				
5/31/2020 14:45	1501.1	1466.1				
5/31/2020 15:00	1500.6	1470.0				
5/31/2020 15:15	1500.0	1466.0				
5/31/2020 15:30	1499.5	1467.1				
5/31/2020 15:45	1499.0	1466.2				
5/31/2020 16:00	1498.8	1541.2				
5/31/2020 16:15	1499.8	1500.4				
5/31/2020 16:30	1499.9	1486.0				
5/31/2020 16:45	1499.9	1518.6				
5/31/2020 17:00	1500.1	1503.4				
5/31/2020 17:15	1500.2	1533.4				
5/31/2020 17:30	1500.3	1476.7				
5/31/2020 17:45	1500.4	1475.1				
5/31/2020 18:00	1500.5	1475.6				
5/31/2020 18:15	1500.5	1504.6				
5/31/2020 18:30	1500.7	1530.4				
5/31/2020 18:45	1501.3	1479.8				
5/31/2020 19:00	1501.4	1532.5				
5/31/2020 19:15	1501.7	1508.0				
5/31/2020 19:30	1501.9	1558.2				
5/31/2020 19:45	1502.1	1533.2				
5/31/2020 20:00	1502.2	1480.5				
5/31/2020 20:15	1502.4	1498.3				
5/31/2020 20:30	1502.4	1499.7				
5/31/2020 20:45	1502.5	1501.5				
5/31/2020 21:00	1502.5	1531.9				
5/31/2020 21:15	1502.5	1533.0				
5/31/2020 21:30	1502.6	1528.1				
5/31/2020 21:45	1502.6	1526.7				
5/31/2020 22:00	1502.7	1510.7				
5/31/2020 22:15	1502.7	1530.2				
5/31/2020 22:30	1502.8	1480.2				
5/31/2020 22:45	1502.8	1489.2				
5/31/2020 23:00	1502.8	1520.4				
5/31/2020 23:15	1502.8	1528.6				
5/31/2020 23:30	1503.0	1550.0				
5/31/2020 23:45	1503.6	1489.0				
6/1/2020 0:00	1533.0	1533.1				
6/1/2020 0:15	1510.0	1496.0				
6/1/2020 0:30	1507.9	1513.0				
6/1/2020 0:45	1507.4	1504.6				

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6/1/2020 1:00	1506.7	1474.8				
6/1/2020 1:15	1506.4	1483.2				
6/1/2020 1:30	1506.3	1511.4				
6/1/2020 1:45	1506.2	1513.1				
6/1/2020 2:00	1506.3	1521.4				
6/1/2020 2:15	1506.3	1522.8				
6/1/2020 2:30	1506.2	1510.0				
6/1/2020 2:45	1506.1	1507.3				
6/1/2020 3:00	1506.9	1503.6				
6/1/2020 3:15	1506.4	1472.1				
6/1/2020 3:30	1506.3	1504.5				
6/1/2020 3:45	1506.5	1490.1				
6/1/2020 4:00	1506.6	1501.0				
6/1/2020 4:15	1506.5	1530.1				
6/1/2020 4:30	1506.3	1504.7				
6/1/2020 4:45	1506.5	1492.7				
6/1/2020 5:00	1506.6	1497.2				
6/1/2020 5:15	1506.7	1525.3				
6/1/2020 5:30	1506.6	1529.5				
6/1/2020 5:45	1506.6	1513.1				
6/1/2020 6:00	1506.4	1526.2				
6/1/2020 6:15	1506.5	1539.5				
6/1/2020 6:30	1506.5	1524.5				
6/1/2020 6:45	1506.5	1494.7				
6/1/2020 7:00	1506.5	1473.1				
6/1/2020 7:15	1506.4	1487.3				
6/1/2020 7:30	1506.4	1505.8				
6/1/2020 7:45	1506.4	1475.2				
6/1/2020 8:00	1506.5	1496.3				
6/1/2020 8:15	1506.4	1479.8				
6/1/2020 8:30	1506.4	1474.5				
6/1/2020 8:45	1506.5	1481.1				
6/1/2020 9:00	1506.4	1537.8				
6/1/2020 9:15	1506.4	1527.0				
6/1/2020 9:30	1506.4	1471.3				
6/1/2020 9:45	1506.4	1472.1				
6/1/2020 10:00	1506.4	1521.6				
6/1/2020 10:15	1506.4	1491.6				
6/1/2020 10:30	1507.4	1587.9				
6/1/2020 10:45	1507.6	1485.6				
6/1/2020 11:00	1507.7	1529.2				
6/1/2020 11:15	1508.5	1582.6				
6/1/2020 11:30	1508.8	1473.9				
6/1/2020 11:45	1508.8	1497.5				
6/1/2020 12:00	1508.8	1515.0				
6/1/2020 12:15	1508.6	1486.8				
6/1/2020 12:30	1508.7	1511.9				
6/1/2020 12:45	1508.6	1522.8				
6/1/2020 13:00	1508.7	1531.3				
6/1/2020 13:15	1509.5	1477.8				
6/1/2020 13:30	1509.4	1531.0				
6/1/2020 13:45	1509.5	1535.0				
6/1/2020 14:00	1509.4	1517.3				
6/1/2020 14:15	1509.4	1510.5				
6/1/2020 14:30	1509.4	1534.6				

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6/1/2020 14:45	1509.4	1527.9				
6/1/2020 15:00	1509.3	1465.4				
6/1/2020 15:15	1509.2	1496.9				
6/1/2020 15:30	1509.1	1474.0				
6/1/2020 15:45	1509.1	1528.1				
6/1/2020 16:00	1509.0	1520.7				
6/1/2020 16:15	1509.0	1505.0				
6/1/2020 16:30	1509.0	1484.8				
6/1/2020 16:45	1509.0	1498.1				
6/1/2020 17:00	1509.0	1528.6				
6/1/2020 17:15	1508.9	1520.3				
6/1/2020 17:30	1508.9	1478.6				
6/1/2020 17:45	1508.9	1510.4				
6/1/2020 18:00	1508.9	1527.2				
6/1/2020 18:15	1508.9	1511.7				
6/1/2020 18:30	1508.8	1497.0				
6/1/2020 18:45	1508.8	1486.6				
6/1/2020 19:00	1508.8	1481.4				
6/1/2020 19:15	1508.8	1494.0				
6/1/2020 19:30	1508.8	1501.7				
6/1/2020 19:45	1508.8	1492.3				
6/1/2020 20:00	1508.7	1515.8				
6/1/2020 20:15	1508.8	1517.5				
6/1/2020 20:30	1508.8	1530.9				
6/1/2020 20:45	1509.0	1573.7				
6/1/2020 21:00	1509.6	1517.3				
6/1/2020 21:15	1509.6	1521.9				
6/1/2020 21:30	1509.6	1527.7				
6/1/2020 21:45	1509.6	1517.0				
6/1/2020 22:00	1509.5	1530.5				
6/1/2020 22:15	1509.5	1516.4				
6/1/2020 22:30	1509.5	1517.1				
6/1/2020 22:45	1509.4	1493.4				
6/1/2020 23:00	1509.4	1511.3				
6/1/2020 23:15	1510.1	1603.1				
6/1/2020 23:30	1510.4	1515.0				
6/1/2020 23:45	1510.4	1526.4				
6/2/2020 0:00	1499.4	1498.9				
6/2/2020 0:15	1507.0	1475.7				
6/2/2020 0:30	1505.8	1501.3				
6/2/2020 0:45	1505.9	1517.1				
6/2/2020 1:00	1506.0	1514.2				
6/2/2020 1:15	1507.5	1478.7				
6/2/2020 1:30	1507.5	1494.6				
6/2/2020 1:45	1508.4	1532.9				
6/2/2020 2:00	1509.2	1494.5				
6/2/2020 2:15	1509.6	1478.2				
6/2/2020 2:30	1509.1	1495.1				
6/2/2020 2:45	1509.2	1496.1				
6/2/2020 3:00	1508.4	1510.2				
6/2/2020 3:15	1508.6	1507.4				
6/2/2020 3:30	1508.5	1505.0				
6/2/2020 3:45	1508.3	1474.7				
6/2/2020 4:00	1508.1	1526.4				
6/2/2020 4:15	1508.2	1495.6				

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6/2/2020 4:30	1509.1	1540.6				
6/2/2020 4:45	1508.9	1535.0				
6/2/2020 5:00	1508.9	1528.3				
6/2/2020 5:15	1508.8	1473.0				
6/2/2020 5:30	1508.1	1481.0				
6/2/2020 5:45	1507.9	1503.6				
6/2/2020 6:00	1508.0	1523.8				
6/2/2020 6:15	1507.1	1513.1				
6/2/2020 6:30	1507.0	1502.9				
6/2/2020 6:45	1507.0	1515.2				
6/2/2020 7:00	1507.0	1475.0				
6/2/2020 7:15	1506.9	1496.5				
6/2/2020 7:30	1507.1	1527.8				
6/2/2020 7:45	1507.1	1537.2				
6/2/2020 8:00	1507.0	1520.8				
6/2/2020 8:15	1507.0	1480.3				
6/2/2020 8:30	1507.0	1494.4				
6/2/2020 8:45	1507.0	1529.2				
6/2/2020 9:00	1507.0	1529.4				
6/2/2020 9:15	1506.9	1507.2				
6/2/2020 9:30	1506.9	1498.9				
6/2/2020 9:45	1506.9	1519.8				
6/2/2020 10:00	1507.1	1471.8				
6/2/2020 10:15	1507.1	1531.7				
6/2/2020 10:30	1507.1	1529.0				
6/2/2020 10:45	1507.0	1509.8				
6/2/2020 11:00	1507.0	1503.4				
6/2/2020 11:15	1507.0	1525.1				
6/2/2020 11:30	1507.0	1484.4				
6/2/2020 11:45	1506.9	1477.9				
6/2/2020 12:00	1507.0	1530.3				
6/2/2020 12:15	1506.9	1484.9				
6/2/2020 12:30	1507.3	1568.1				
6/2/2020 12:45	1508.4	1501.7				
6/2/2020 13:00	1508.4	1521.5				
6/2/2020 13:15	1508.3	1513.2				
6/2/2020 13:30	1508.9	1584.0				
6/2/2020 13:45	1509.9	1492.5				
6/2/2020 14:00	1509.9	1475.5				
6/2/2020 14:15	1509.9	1533.1				
6/2/2020 14:30	1509.6	1467.7				
6/2/2020 14:45	1508.9	1467.5				
6/2/2020 15:00	1508.3	1470.9				
6/2/2020 15:15	1507.6	1474.7				
6/2/2020 15:30	1507.5	1544.5				
6/2/2020 15:45	1507.7	1474.8				
6/2/2020 16:00	1507.4	1499.1				
6/2/2020 16:15	1507.4	1498.5				
6/2/2020 16:30	1507.1	1477.2				
6/2/2020 16:45	1506.8	1490.5				
6/2/2020 17:00	1506.4	1472.4				
6/2/2020 17:15	1506.4	1531.4				
6/2/2020 17:30	1506.3	1490.5				
6/2/2020 17:45	1506.3	1514.5				
6/2/2020 18:00	1506.3	1505.7				

Madison RTO Oxidation Temp May 23-June 5 2020

6/2/2020 18:15	1506.3	1504.3				
6/2/2020 18:30	1506.2	1491.6				
6/2/2020 18:45	1505.9	1473.7				
6/2/2020 19:00	1505.5	1479.4				
6/2/2020 19:15	1505.2	1485.9				
6/2/2020 19:30	1505.5	1488.0				
6/2/2020 19:45	1505.3	1538.8				
6/2/2020 20:00	1505.2	1496.4				
6/2/2020 20:15	1505.1	1513.9				
6/2/2020 20:30	1505.2	1503.8				
6/2/2020 20:45	1505.2	1499.4				
6/2/2020 21:00	1505.1	1500.3				
6/2/2020 21:15	1505.1	1510.4				
6/2/2020 21:30	1505.2	1515.7				
6/2/2020 21:45	1505.2	1505.6				
6/2/2020 22:00	1505.3	1503.5				
6/2/2020 22:15	1505.0	1477.4				
6/2/2020 22:30	1504.6	1466.8				
6/2/2020 22:45	1504.2	1470.6				
6/2/2020 23:00	1503.8	1461.6				
6/2/2020 23:15	1503.5	1468.3				
6/2/2020 23:30	1503.1	1471.4				
6/2/2020 23:45	1502.7	1470.6				
6/3/2020 0:00	1470.5	1470.6				
6/3/2020 0:15	1500.5	1527.8				
6/3/2020 0:30	1494.5	1466.9				
6/3/2020 0:45	1489.2	1526.7				
6/3/2020 1:00	1494.9	1516.7				
6/3/2020 1:15	1497.5	1504.7				
6/3/2020 1:30	1500.9	1476.7				
6/3/2020 1:45	1501.6	1513.3				
6/3/2020 2:00	1503.9	1526.7				
6/3/2020 2:15	1506.4	1527.4				
6/3/2020 2:30	1508.1	1478.5				
6/3/2020 2:45	1508.8	1527.7				
6/3/2020 3:00	1519.1	1656.1				
6/3/2020 3:15	1519.3	1533.2				
6/3/2020 3:30	1518.9	1489.1				
6/3/2020 3:45	1517.9	1536.5				
6/3/2020 4:00	1522.1	1598.4				
6/3/2020 4:15	1522.2	1516.5				
6/3/2020 4:30	1521.9	1530.2				
6/3/2020 4:45	1521.2	1516.6				
6/3/2020 5:00	1520.8	1508.3				
6/3/2020 5:15	1523.3	1618.7				
6/3/2020 5:30	1522.8	1500.3				
6/3/2020 5:45	1522.1	1522.4				
6/3/2020 6:00	1521.1	1500.3				
6/3/2020 6:15	1520.0	1482.4				
6/3/2020 6:30	1518.6	1497.7				
6/3/2020 6:45	1518.1	1471.1				
6/3/2020 7:00	1517.0	1498.5				
6/3/2020 7:15	1516.6	1500.4				
6/3/2020 7:30	1515.9	1492.3				
6/3/2020 7:45	1515.4	1497.5				

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6/3/2020 8:00	1514.2	1469.9				
6/3/2020 8:15	1513.2	1483.3				
6/3/2020 8:30	1512.1	1484.2				
6/3/2020 8:45	1511.6	1488.8				
6/3/2020 9:00	1510.5	1475.0				
6/3/2020 9:15	1509.7	1485.8				
6/3/2020 9:30	1509.5	1557.7				
6/3/2020 9:45	1510.9	1474.4				
6/3/2020 10:00	1510.9	1544.6				
6/3/2020 10:15	1510.8	1503.6				
6/3/2020 10:30	1510.6	1523.6				
6/3/2020 10:45	1510.8	1520.9				
6/3/2020 11:00	1511.0	1516.5				
6/3/2020 11:15	1510.9	1506.8				
6/3/2020 11:30	1510.8	1503.7				
6/3/2020 11:45	1510.4	1485.9				
6/3/2020 12:00	1509.9	1470.7				
6/3/2020 12:15	1509.0	1467.4				
6/3/2020 12:30	1508.3	1474.8				
6/3/2020 12:45	1507.6	1466.8				
6/3/2020 13:00	1507.0	1476.3				
6/3/2020 13:15	1506.3	1471.6				
6/3/2020 13:30	1505.6	1469.8				
6/3/2020 13:45	1504.9	1468.8				
6/3/2020 14:00	1504.8	1530.9				
6/3/2020 14:15	1460.0	1490.0				
6/3/2020 14:30	1460.0	1490.0				
6/3/2020 14:45	1460.0	1490.0				
6/3/2020 15:00	1460.0	1490.0				
6/3/2020 15:15	1460.0	1490.0				
6/3/2020 15:30	1460.0	1490.0				
6/3/2020 15:45	1460.0	1490.0				
6/3/2020 16:00	1460.0	1490.0				
6/3/2020 16:15	1460.0	1490.0				
6/3/2020 16:30	1460.0	1490.0				
6/3/2020 16:45	1460.0	1490.0				
6/3/2020 17:00	1460.0	1490.0				
6/3/2020 17:15	1460.0	1490.0				
6/3/2020 17:30	1460.0	1490.0				
6/3/2020 17:45	1460.0	1490.0				
6/3/2020 18:00	1460.0	1490.0				
6/3/2020 18:15	1460.0	1490.0				
6/3/2020 18:30	1460.0	1490.0				
6/3/2020 18:45	1460.0	1490.0				
6/3/2020 19:00	1460.0	1490.0				
6/3/2020 19:15	1460.0	1490.0				
6/3/2020 19:30	1460.0	1490.0				
6/3/2020 19:45	1460.0	1490.0				
6/3/2020 20:00	1460.0	1490.0				
6/3/2020 20:15	1460.0	1490.0				
6/3/2020 20:30	1460.0	1490.0				
6/3/2020 20:45	1460.0	1490.0				
6/3/2020 21:00	1460.0	1490.0				
6/3/2020 21:15	1460.0	1490.0				
6/3/2020 21:30	1460.0	1490.0				

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6/3/2020 21:45	1460.0	1490.0				
6/3/2020 22:00	1460.0	1490.0				
6/3/2020 22:15	1460.0	1490.0				
6/3/2020 22:30	1460.0	1490.0				
6/3/2020 22:45	1460.0	1490.0				
6/3/2020 23:00	1460.0	1490.0				
6/3/2020 23:15	1460.0	1490.0				
6/3/2020 23:30	1460.0	1490.0				
6/3/2020 23:45	1460.0	1490.0				
6/4/2020 0:00	1460.0	1490.0				
6/4/2020 0:15	1460.0	1490.0				
6/4/2020 0:30	1460.0	1490.0				
6/4/2020 0:45	1460.0	1490.0				
6/4/2020 1:00	1460.0	1490.0				
6/4/2020 1:15	1460.0	1490.0				
6/4/2020 1:30	1460.0	1490.0				
6/4/2020 1:45	1460.0	1490.0				
6/4/2020 2:00	1460.0	1490.0				
6/4/2020 2:15	1460.0	1490.0				
6/4/2020 2:30	1460.0	1490.0				
6/4/2020 2:45	1460.0	1490.0				
6/4/2020 3:00	1460.0	1490.0				
6/4/2020 3:15	1460.0	1490.0				
6/4/2020 3:30	1460.0	1490.0				
6/4/2020 3:45	1460.0	1490.0				
6/4/2020 4:00	1460.0	1490.0				
6/4/2020 4:15	1460.0	1490.0				
6/4/2020 4:30	1460.0	1490.0				
6/4/2020 4:45	1460.0	1490.0				
6/4/2020 5:00	1460.0	1490.0				
6/4/2020 5:15	1460.0	1490.0				
6/4/2020 5:30	1460.0	1490.0				
6/4/2020 5:45	1493.8	1512.1				
6/4/2020 6:00	1496.9	1664.1				
6/4/2020 6:15	1497.9	1507.3				
6/4/2020 6:30	1498.7	1483.7				
6/4/2020 6:45	1498.5	1496.6				
6/4/2020 7:00	1498.9	1506.8				
6/4/2020 7:15	1499.3	1525.5				
6/4/2020 7:30	1499.6	1491.6				
6/4/2020 7:45	1499.7	1513.6				
6/4/2020 8:00	1500.4	1500.4				
6/4/2020 8:15	1501.3	1520.9				
6/4/2020 8:30	1502.2	1505.5				
6/4/2020 8:45	1503.2	1556.3				
6/4/2020 9:00	1504.5	1486.6				
6/4/2020 9:15	1505.2	1504.3				
6/4/2020 9:30	1505.3	1490.6				
6/4/2020 9:45	1503.4	1498.5				
6/4/2020 10:00	1503.3	1517.9				
6/4/2020 10:15	1503.4	1514.4				
6/4/2020 10:30	1503.8	1503.4				
6/4/2020 10:45	1503.3	1515.6				
6/4/2020 11:00	1504.8	1574.5				
6/4/2020 11:15	1505.1	1502.9				

Madison RTO Oxidation Temp May 23-June 5 2020

6/4/2020 11:30	1504.8	1487.6				
6/4/2020 11:45	1505.2	1494.9				
6/4/2020 12:00	1505.4	1489.9				
6/4/2020 12:15	1506.3	1512.6				
6/4/2020 12:30	1507.0	1487.6				
6/4/2020 12:45	1507.7	1493.8				
6/4/2020 13:00	1508.4	1506.7				
6/4/2020 13:15	1509.4	1496.6				
6/4/2020 13:30	1510.3	1506.6				
6/4/2020 13:45	1511.5	1501.5				
6/4/2020 14:00	1511.4	1496.6				
6/4/2020 14:15	1510.9	1506.6				
6/4/2020 14:30	1510.6	1495.1				
6/4/2020 14:45	1510.4	1508.4				
6/4/2020 15:00	1510.0	1466.9				
6/4/2020 15:15	1508.9	1475.4				
6/4/2020 15:30	1508.2	1470.5				
6/4/2020 15:45	1470.4	1477.6				
6/4/2020 16:00	1471.0	1481.4				
6/4/2020 16:15	1477.8	1464.6				
6/4/2020 16:30	1474.7	1488.7				
6/4/2020 16:45	1476.1	1542.1				
6/4/2020 17:00	1488.3	1511.5				
6/4/2020 17:15	1488.1	1506.0				
6/4/2020 17:30	1490.9	1506.3				
6/4/2020 17:45	1491.6	1491.6				
6/4/2020 18:00	1492.8	1505.6				
6/4/2020 18:15	1493.1	1508.5				
6/4/2020 18:30	1495.6	1466.3				
6/4/2020 18:45	1494.0	1489.8				
6/4/2020 19:00	1493.7	1504.0				
6/4/2020 19:15	1495.0	1604.5				
6/4/2020 19:30	1499.1	1497.0				
6/4/2020 19:45	1503.0	1502.0				
6/4/2020 20:00	1503.1	1519.5				
6/4/2020 20:15	1503.4	1479.2				
6/4/2020 20:30	1502.7	1519.6				
6/4/2020 20:45	1502.4	1531.8				
6/4/2020 21:00	1503.5	1509.5				
6/4/2020 21:15	1503.4	1531.2				
6/4/2020 21:30	1504.0	1514.7				
6/4/2020 21:45	1503.8	1478.9				
6/4/2020 22:00	1503.3	1523.0				
6/4/2020 22:15	1503.0	1495.8				
6/4/2020 22:30	1503.3	1505.7				
6/4/2020 22:45	1503.2	1502.8				
6/4/2020 23:00	1503.0	1532.6				
6/4/2020 23:15	1503.7	1526.6				
6/4/2020 23:30	1504.0	1474.4				
6/4/2020 23:45	1503.6	1478.6				
6/5/2020 0:00	1502.6	1521.3				
6/5/2020 0:15	1502.9	1507.8				
6/5/2020 0:30	1503.4	1497.7				
6/5/2020 0:45	1503.2	1492.4				
6/5/2020 1:00	1503.0	1484.5				

Madison RTO Oxidation Temp May 23-June 5 2020

6/5/2020 1:15	1502.6	1487.2				
6/5/2020 1:30	1502.2	1471.5				
6/5/2020 1:45	1501.6	1573.5				
6/5/2020 2:00	1501.6	1479.7				
6/5/2020 2:15	1503.1	1522.3				
6/5/2020 2:30	1502.5	1502.5				
6/5/2020 2:45	1502.5	1465.5				
6/5/2020 3:00	1502.3	1473.6				
6/5/2020 3:15	1501.6	1470.7				
6/5/2020 3:30	1501.0	1476.4				
6/5/2020 3:45	1500.4	1479.5				
6/5/2020 4:00	1500.0	1477.7				
6/5/2020 4:15	1499.5	1470.1				
6/5/2020 4:30	1498.9	1483.6				
6/5/2020 4:45	1498.6	1468.9				
6/5/2020 5:00	1498.1	1468.7				
6/5/2020 5:15	1497.6	1483.4				
6/5/2020 5:30	1497.3	1464.7				
6/5/2020 5:45	1496.9	1480.7				
6/5/2020 6:00	1496.4	1472.2				
6/5/2020 6:15	1495.9	1463.0				
6/5/2020 6:30	1495.5	1481.6				
6/5/2020 6:45	1495.2	1487.5				
6/5/2020 7:00	1495.0	1498.6				
6/5/2020 7:15	1495.0	1500.6				
6/5/2020 7:30	1495.3	1467.4				
6/5/2020 7:45	1495.0	1530.7				
6/5/2020 8:00	1494.9	1481.4				
6/5/2020 8:15	1495.0	1500.2				
6/5/2020 8:30	1494.8	1551.4				
6/5/2020 8:45	1495.3	1492.3				
6/5/2020 9:00	1495.3	1473.2				
6/5/2020 9:15	1495.4	1468.1				
6/5/2020 9:30	1495.1	1633.2				
6/5/2020 9:45	1496.5	1472.4				
6/5/2020 10:00	1496.4	1532.5				
6/5/2020 10:15	1496.7	1476.0				
6/5/2020 10:30	1496.5	1472.7				
6/5/2020 10:45	1496.1	1474.7				
6/5/2020 11:00	1495.8	1495.5				
6/5/2020 11:15	1495.7	1464.6				
6/5/2020 11:30	1495.6	1476.5				
6/5/2020 11:45	1495.3	1470.5				
6/5/2020 12:00	1494.9	1465.6				
6/5/2020 12:15	1494.6	1466.6				
6/5/2020 12:30	1494.3	1467.4				
6/5/2020 12:45	1494.0	1481.9				
6/5/2020 13:00	1493.8	1466.2				
6/5/2020 13:15	1493.5	1476.4				
6/5/2020 13:30	1493.3	1500.9				
6/5/2020 13:45	1493.2	1587.1				
6/5/2020 14:00	1494.0	1493.8				
6/5/2020 14:15	1494.3	1490.7				
6/5/2020 14:30	1494.3	1519.7				
6/5/2020 14:45	1494.4	1497.6				

Madison RTO Oxidation Temp May 23-June 5 2020

6/5/2020 15:00	1494.5	1504.3				
6/5/2020 15:15	1494.6	1522.0				
6/5/2020 15:30	1494.8	1585.9				
6/5/2020 15:45	1495.4	1481.0				
6/5/2020 16:00	1496.4	1505.0				
6/5/2020 16:15	1496.5	1477.0				
6/5/2020 16:30	1496.9	1519.6				
6/5/2020 16:45	1497.2	1468.8				
6/5/2020 17:00	1496.6	1466.6				
6/5/2020 17:15	1496.4	1467.3				
6/5/2020 17:30	1496.0	1473.3				
6/5/2020 17:45	1495.8	1476.5				
6/5/2020 18:00	1495.5	1472.6				
6/5/2020 18:15	1495.2	1470.0				
6/5/2020 18:30	1494.7	1481.3				
6/5/2020 18:45	1494.6	1501.3				
6/5/2020 19:00	1494.7	1478.6				
6/5/2020 19:15	1494.4	1502.7				
6/5/2020 19:30	1493.7	1473.6				
6/5/2020 19:45	1493.0	1490.6				
6/5/2020 20:00	1492.7	1481.8				
6/5/2020 20:15	1492.6	1465.9				
6/5/2020 20:30	1492.4	1474.3				
6/5/2020 20:45	1492.1	1492.3				
6/5/2020 21:00	1491.7	1546.5				
6/5/2020 21:15	1491.9	1481.3				
6/5/2020 21:30	1492.0	1487.7				
6/5/2020 21:45	1491.9	1477.5				
6/5/2020 22:00	1492.1	1500.4				
6/5/2020 22:15	1492.2	1497.8				
6/5/2020 22:30	1492.1	1506.8				
6/5/2020 22:45	1492.3	1470.8				
6/5/2020 23:00	1492.0	1517.6				
6/5/2020 23:15	1491.7	1511.8				
6/5/2020 23:30	1491.8	1662.9				
6/5/2020 23:45	1492.8	1510.8				
6/6/2020 0:00	1520.5	1520.7				

Date/Time	24hr Average Temp. ¹ (°F)	Chamber Temp. ² (°F)	Notes
1/10/2019 0:00	1446.3	1446.4	¹ 24 hour average of combustion chamber Temp
1/11/2019 0:00	1442.8	1443.2	² Average of 3 Combustion Chamber TCs
1/12/2019 0:00	1477.7	1478.1	
1/13/2019 0:00	1467.4	1467.6	
1/14/2019 0:00	1446.9	1447.0	
1/15/2019 0:00	1442.8	1442.7	
1/16/2019 0:00	1447.4	1447.4	
1/17/2019 0:00	1439.1	1439.2	
1/18/2019 0:00	1439.9	1439.8	
1/19/2019 0:00	1434.8	1434.6	
1/20/2019 0:00	1438.0	1438.0	
1/21/2019 0:00	1440.1	1440.1	
1/22/2019 0:00	1464.0	1464.0	
1/23/2019 0:00	1454.2	1454.3	
1/24/2019 0:00	1436.0	1436.5	
1/25/2019 0:00	1438.4	1438.4	
1/26/2019 0:00	1437.3	1437.3	
1/27/2019 0:00	1435.2	1435.5	
1/28/2019 0:00	1455.4	1455.0	
1/29/2019 0:00	1438.1	1438.5	
1/30/2019 0:00	1435.2	1434.9	
1/31/2019 0:00	1442.8	1442.7	
2/1/2019 0:00	1433.5	1433.5	
2/2/2019 0:00	1443.9	1444.0	
2/3/2019 0:00	1442.9	1443.0	
2/4/2019 0:00	1439.5	1439.7	
2/5/2019 0:00	1443.0	1442.9	
2/6/2019 0:00	1443.1	1443.5	
2/7/2019 0:00	1425.0	1425.0	
2/8/2019 0:00	1425.0	1425.0	
2/9/2019 0:00	1425.0	1425.0	
2/10/2019 0:00	1425.0	1425.0	
2/11/2019 0:00	1425.0	1425.0	
2/12/2019 0:00	1445.5	1441.2	
2/13/2019 0:00	1447.2	1447.2	
2/14/2019 0:00	1447.5	1447.5	
2/15/2019 0:00	1447.7	1447.7	
2/16/2019 0:00	1444.5	1444.3	
2/17/2019 0:00	1446.5	1446.7	
2/18/2019 0:00	1534.6	1534.6	
2/19/2019 0:00	1439.7	1439.5	
2/20/2019 0:00	1512.4	1512.6	
2/21/2019 0:00	1510.2	1510.3	
2/22/2019 0:00	1432.8	1433.0	
2/23/2019 0:00	1512.1	1512.1	
2/24/2019 0:00	1434.6	1434.8	
2/25/2019 0:00	1437.1	1437.3	
2/26/2019 0:00	1440.7	1440.5	
2/27/2019 0:00	1439.8	1439.5	
2/28/2019 0:00	1443.5	1443.8	
3/1/2019 0:00	1496.7	1496.7	
3/2/2019 0:00	1438.4	1438.3	
3/3/2019 0:00	1459.0	1459.1	
3/4/2019 0:00	1441.1	1441.0	
3/5/2019 0:00	1443.9	1444.1	
3/6/2019 0:00	1440.9	1441.2	
3/7/2019 0:00	1438.5	1438.5	
3/8/2019 0:00	1445.5	1445.6	
3/9/2019 0:00	1446.1	1446.0	
3/10/2019 0:00	1447.6	1447.6	
3/11/2019 0:00	1552.8	1552.8	
3/12/2019 0:00	1440.3	1440.2	
3/13/2019 0:00	1491.7	1491.9	
3/14/2019 0:00	1435.7	1435.4	
3/15/2019 0:00	1439.0	1439.2	
3/16/2019 0:00	1441.1	1441.0	
3/17/2019 0:00	1522.7	1522.8	
3/18/2019 0:00	1439.6	1439.7	
3/19/2019 0:00	1437.8	1438.3	
3/20/2019 0:00	1489.9	1489.9	

3/21/2019 0:00	1438.0	1438.0
3/22/2019 0:00	1437.3	1437.2
3/23/2019 0:00	1441.1	1441.2
3/24/2019 0:00	1437.7	1437.6
3/25/2019 0:00	1432.8	1432.7
3/26/2019 0:00	1436.7	1437.0
3/27/2019 0:00	1432.1	1432.1
3/28/2019 0:00	1437.9	1438.0
3/29/2019 0:00	1442.2	1442.3
3/30/2019 0:00	1448.3	1448.2
3/31/2019 0:00	1449.4	1449.7
4/1/2019 0:00	1442.7	1442.9
4/2/2019 0:00	1445.6	1446.0
4/3/2019 0:00	1446.6	1446.5
4/4/2019 0:00	1539.6	1539.6
4/5/2019 0:00	1442.2	1442.5
4/6/2019 0:00	1443.9	1443.7
4/7/2019 0:00	1440.7	1440.7
4/8/2019 0:00	1439.7	1439.5
4/9/2019 0:00	1446.1	1446.3
4/10/2019 0:00	1530.2	1530.3
4/11/2019 0:00	1436.3	1436.2
4/12/2019 0:00	1440.6	1440.8
4/13/2019 0:00	1570.4	1570.5
4/14/2019 0:00	1433.1	1433.4
4/15/2019 0:00	1436.2	1435.9
4/16/2019 0:00	1447.1	1446.9
4/17/2019 0:00	1444.3	1444.4
4/18/2019 0:00	1432.8	1432.8
4/19/2019 0:00	1442.6	1442.6
4/20/2019 0:00	1443.0	1442.9
4/21/2019 0:00	1435.8	1435.8
4/22/2019 0:00	1444.7	1444.7
4/23/2019 0:00	1540.7	1540.7
4/24/2019 0:00	1442.5	1442.7
4/25/2019 0:00	1447.6	1447.6
4/26/2019 0:00	1436.7	1436.5
4/27/2019 0:00	1542.8	1542.7
4/28/2019 0:00	1437.5	1437.6
4/29/2019 0:00	1534.1	1534.0
4/30/2019 0:00	1445.5	1445.6
5/1/2019 0:00	1432.4	1432.5
5/2/2019 0:00	1437.0	1437.1
5/3/2019 0:00	1432.2	1432.4
5/4/2019 0:00	1442.6	1443.2
5/5/2019 0:00	1430.8	1430.8
5/6/2019 0:00	1441.9	1442.0
5/7/2019 0:00	1445.9	1445.9
5/8/2019 0:00	1489.4	1489.9
5/9/2019 0:00	1561.4	1561.3
5/10/2019 0:00	1441.9	1442.0
5/11/2019 0:00	1447.2	1445.7
5/12/2019 0:00	1443.9	1442.0
5/13/2019 0:00	1443.3	1443.6
5/14/2019 0:00	1444.6	1444.3
5/15/2019 0:00	1442.1	1442.0
5/16/2019 0:00	1442.6	1442.8
5/17/2019 0:00	1439.7	1439.6
5/18/2019 0:00	1443.2	1443.2
5/19/2019 0:00	1443.6	1443.4
5/20/2019 0:00	1491.3	1491.6
5/21/2019 0:00	1446.5	1446.3
5/22/2019 0:00	1438.9	1438.7
5/23/2019 0:00	1440.1	1440.0
5/24/2019 0:00	1432.7	1432.7
5/25/2019 0:00	1436.8	1437.1
5/26/2019 0:00	1474.4	1474.0
5/27/2019 0:00	1438.7	1438.5
5/28/2019 0:00	1443.4	1443.0
5/29/2019 0:00	1439.2	1439.0
5/30/2019 0:00	1435.6	1435.4
5/31/2019 0:00	1438.1	1438.4
6/1/2019 0:00	1434.9	1435.0

6/2/2019 0:00	1437.2	1437.1
6/3/2019 0:00	1434.2	1434.4
6/4/2019 0:00		Operations Shutdown
6/5/2019 0:00		Operations Shutdown
6/6/2019 0:00		Operations Shutdown
6/7/2019 0:00		Operations Shutdown
6/8/2019 0:00		Operations Shutdown
6/9/2019 0:00	1436.6	1431.6
6/10/2019 0:00	1435.4	1435.0
6/11/2019 0:00	1443.9	1443.6
6/12/2019 0:00	1432.8	1432.6
6/13/2019 0:00	1434.1	1433.9
6/14/2019 0:00	1435.6	1435.8
6/15/2019 0:00	1447.5	1447.5
6/16/2019 0:00	1452.6	1452.3
6/17/2019 0:00	1446.7	1446.5
6/18/2019 0:00	1436.7	1436.8
6/19/2019 0:00	1448.1	1448.2
6/20/2019 0:00	1448.9	1448.5
6/21/2019 0:00	1474.4	1474.4
6/22/2019 0:00	1492.8	1492.6
6/23/2019 0:00	1437.6	1437.6
6/24/2019 0:00	1475.0	1455.0
6/25/2019 0:00	1475.4	1497.6
6/26/2019 0:00	1501.4	1501.5
6/27/2019 0:00	1479.5	1479.5
6/28/2019 0:00	1500.4	1500.5
6/29/2019 0:00	1500.7	1500.9
6/30/2019 0:00	1493.7	1493.7
7/1/2019 0:00	1511.6	1511.6
7/2/2019 0:00	1501.5	1501.5
7/3/2019 0:00	1478.6	1478.6
7/4/2019 0:00	1533.8	1533.8
7/5/2019 0:00	1495.4	1495.4
7/6/2019 0:00	1460.5	1460.6
7/7/2019 0:00	1501.5	1501.5
7/8/2019 0:00	1445.8	1445.8
7/9/2019 0:00	1531.7	1531.7
7/10/2019 0:00	1504.4	1504.5
7/11/2019 0:00	1451.1	1451.6
7/12/2019 0:00	1439.6	1439.7
7/13/2019 0:00	1487.3	1487.0
7/14/2019 0:00	1480.3	1479.9
7/15/2019 0:00	1493.0	1492.9
7/16/2019 0:00	1572.9	1573.1
7/17/2019 0:00	1472.7	1472.8
7/18/2019 0:00	1470.7	1470.7
7/19/2019 0:00	1482.1	1482.2
7/20/2019 0:00	1481.6	1481.6
7/21/2019 0:00	1452.5	1452.3
7/22/2019 0:00	1495.2	1495.3
7/23/2019 0:00	1493.2	1493.0
7/24/2019 0:00	1496.3	1496.2
7/25/2019 0:00	1481.5	1481.2
7/26/2019 0:00	1485.9	1487.3
7/27/2019 0:00	1468.7	1468.5
7/28/2019 0:00	1477.0	1476.9
7/29/2019 0:00	1450.7	1450.7
7/30/2019 0:00	1484.0	1483.8
7/31/2019 0:00	1459.7	1459.6
8/1/2019 0:00	1470.7	1470.8
8/2/2019 0:00	1500.5	1500.5
8/3/2019 0:00	1494.4	1494.5
8/4/2019 0:00	1489.4	1489.4
8/5/2019 0:00	1468.0	1468.1
8/6/2019 0:00	1525.1	1525.6
8/7/2019 0:00	1467.5	1467.9
8/8/2019 0:00	1474.5	1474.6
8/9/2019 0:00	1502.8	1502.2
8/10/2019 0:00	1489.1	1489.2
8/11/2019 0:00	1501.5	1501.6
8/12/2019 0:00	1483.4	1483.6
8/13/2019 0:00	1483.6	1483.6

8/14/2019 0:00	1472.3	1472.1
8/15/2019 0:00	1500.2	1500.1
8/16/2019 0:00	1522.4	1522.3
8/17/2019 0:00	1454.3	1454.6
8/18/2019 0:00	1453.7	1454.1
8/19/2019 0:00	1481.6	1481.3
8/20/2019 0:00	1496.9	1496.9
8/21/2019 0:00	1464.1	1464.0
8/22/2019 0:00	1447.0	1446.9
8/23/2019 0:00	1470.7	1470.8
8/24/2019 0:00	1483.6	1483.6
8/25/2019 0:00	1484.3	1484.4
8/26/2019 0:00	1472.8	1472.5
8/27/2019 0:00	1490.8	1490.7
8/28/2019 0:00	1483.0	1482.9
8/29/2019 0:00		Operations Shutdown
8/30/2019 0:00	1490.6	1464.4
8/31/2019 0:00	1494.6	1494.6
9/1/2019 0:00	1471.5	1471.6
9/2/2019 0:00	1454.8	1454.8
9/3/2019 0:00	1497.4	1497.5
9/4/2019 0:00	1469.8	1470.0
9/5/2019 0:00	1570.3	1570.2
9/6/2019 0:00	1473.8	1473.9
9/7/2019 0:00	1452.6	1452.3
9/8/2019 0:00	1489.5	1489.6
9/9/2019 0:00	1495.6	1495.6
9/10/2019 0:00	1461.3	1461.1
9/11/2019 0:00		Operations Shutdown
9/12/2019 0:00	1488.0	1503.5
9/13/2019 0:00	1489.4	1489.1
9/14/2019 0:00	1498.8	1498.9
9/15/2019 0:00	1502.2	1502.3
9/16/2019 0:00	1457.9	1457.9
9/17/2019 0:00	1499.6	1499.7
9/18/2019 0:00	1455.6	1455.6
9/19/2019 0:00	1503.6	1503.7
9/20/2019 0:00	1495.4	1495.5
9/21/2019 0:00	1502.9	1502.8
9/22/2019 0:00	1465.8	1466.0
9/23/2019 0:00	1554.3	1554.6
9/24/2019 0:00	1500.4	1500.3
9/25/2019 0:00	1488.7	1488.8
9/26/2019 0:00	1499.6	1499.6
9/27/2019 0:00	1473.7	1473.7
9/28/2019 0:00	1465.1	1471.1
9/29/2019 0:00	1470.7	1458.2
9/30/2019 0:00	1491.2	1491.1
10/1/2019 0:00	1453.4	1453.5
10/2/2019 0:00	1506.6	1506.6
10/3/2019 0:00	1487.6	1487.7
10/4/2019 0:00	1441.6	1441.8
10/5/2019 0:00	1452.1	1512.2
10/6/2019 0:00	1456.5	1441.7
10/7/2019 0:00	1443.7	1443.6
10/8/2019 0:00	1438.7	1438.8
10/9/2019 0:00	1439.8	1439.6
10/10/2019 0:00	1439.7	1439.7
10/11/2019 0:00	1468.8	1468.8
10/12/2019 0:00	1445.2	1445.2
10/13/2019 0:00	1438.8	1438.8
10/14/2019 0:00	1442.5	1442.7
10/15/2019 0:00	1436.8	1436.8
10/16/2019 0:00	1511.9	1512.1
10/17/2019 0:00	1442.8	1442.7
10/18/2019 0:00	1461.0	1461.1
10/19/2019 0:00		Operations Shutdown
10/20/2019 0:00		Operations Shutdown
10/21/2019 0:00		Operations Shutdown
10/22/2019 0:00	1440.1	1438.5
10/23/2019 0:00	1439.0	1438.9
10/24/2019 0:00	1502.7	1502.9
10/25/2019 0:00	1445.0	1445.0

10/26/2019 0:00	1446.6	1446.6
10/27/2019 0:00	1436.9	1436.9
10/28/2019 0:00	1436.5	1436.8
10/29/2019 0:00	1443.5	1443.3
10/30/2019 0:00	1479.5	1479.7
10/31/2019 0:00	1441.9	1441.6
11/1/2019 0:00	1487.3	1487.3
11/2/2019 0:00	1453.7	1453.7
11/3/2019 0:00	1454.6	1454.6
11/4/2019 0:00	1443.0	1442.9
11/5/2019 0:00	1444.8	1444.7
11/6/2019 0:00	1446.6	1446.6
11/7/2019 0:00	1440.7	1440.7
11/8/2019 0:00	1438.4	1438.3
11/9/2019 0:00	1440.5	1440.5
11/10/2019 0:00	1443.0	1443.1
11/11/2019 0:00	1436.1	1436.0
11/12/2019 0:00	1454.7	1454.7
11/13/2019 0:00	1514.0	1513.3
11/14/2019 0:00	1522.4	1522.3
11/15/2019 0:00	1507.3	1507.3
11/16/2019 0:00	1473.8	1474.1
11/17/2019 0:00	1492.5	1492.3
11/18/2019 0:00	1469.9	1470.1
11/19/2019 0:00	1464.5	1464.5
11/20/2019 0:00	1465.4	1465.6
11/21/2019 0:00	1482.4	1482.4
11/22/2019 0:00	1455.0	1472.0
11/23/2019 0:00	1482.1	1469.8
11/24/2019 0:00	1471.9	1471.7
11/25/2019 0:00	1549.9	1550.0
11/26/2019 0:00	1469.1	1469.0
11/27/2019 0:00	1464.8	1464.6
11/28/2019 0:00	1470.0	1470.0
11/29/2019 0:00	1545.6	1545.8
11/30/2019 0:00	1464.2	1464.0
12/1/2019 0:00	1502.3	1502.5
12/2/2019 0:00	1462.0	1462.1
12/3/2019 0:00	1476.3	1476.3
12/4/2019 0:00	1476.3	1476.3
12/5/2019 0:00	1463.5	1463.3
12/6/2019 0:00	1462.3	1462.4
12/7/2019 0:00	1467.4	1467.2
12/8/2019 0:00	1469.0	1469.1
12/9/2019 0:00	1471.4	1471.7
12/10/2019 0:00	1465.6	1465.6
12/11/2019 0:00	1468.6	1468.6
12/12/2019 0:00	1464.6	1464.4
12/13/2019 0:00	1572.4	1571.9
12/14/2019 0:00	1502.3	1502.2
12/15/2019 0:00	1503.7	1503.7
12/16/2019 0:00	1509.4	1509.5
12/17/2019 0:00	1520.6	1520.7
12/18/2019 0:00	1475.8	1476.2
12/19/2019 0:00	1513.1	1513.0
12/20/2019 0:00	1505.8	1505.9
12/21/2019 0:00	1488.4	1488.7
12/22/2019 0:00	1474.6	1474.6
12/23/2019 0:00	1512.6	1512.6
12/24/2019 0:00	1480.8	1480.7
12/25/2019 0:00	1506.4	1506.5
12/26/2019 0:00	1502.8	1503.0
12/27/2019 0:00	1486.7	1486.8
12/28/2019 0:00	1516.5	1516.5
12/29/2019 0:00	1470.0	1470.0
12/30/2019 0:00	1488.0	1488.0
12/31/2019 0:00	1498.8	1498.8
1/1/2020 0:00	1513.6	1513.6
1/2/2020 0:00	1483.7	1483.7
1/3/2020 0:00	1488.5	1488.6
1/4/2020 0:00	1481.1	1475.4
1/5/2020 0:00	1491.7	1508.7
1/6/2020 0:00	1574.6	1574.1

1/7/2020 0:00	1472.2	1472.3
1/8/2020 0:00	1477.7	1477.7
1/9/2020 0:00	1486.6	1486.6
1/10/2020 0:00	1500.0	1499.9
1/11/2020 0:00	1469.7	1469.7
1/12/2020 0:00	1463.1	1463.4
1/13/2020 0:00	1505.6	1505.6
1/14/2020 0:00	1509.5	1509.5
1/15/2020 0:00	1465.7	1465.7
1/16/2020 0:00	1475.0	1474.9
1/17/2020 0:00	1495.9	1496.3
1/18/2020 0:00	1558.5	1558.5
1/19/2020 0:00	1517.5	1517.5
1/20/2020 0:00	1487.7	1487.4
1/21/2020 0:00	1520.3	1520.3
1/22/2020 0:00	1529.1	1529.1
1/23/2020 0:00	1516.5	1516.5
1/24/2020 0:00		Operations Shutdown
1/25/2020 0:00		Operations Shutdown
1/26/2020 0:00		Operations Shutdown
1/27/2020 0:00		Operations Shutdown
1/28/2020 0:00	1483.0	1522.5
1/29/2020 0:00	1474.2	1474.2
1/30/2020 0:00	1473.4	1473.5
1/31/2020 0:00	1488.7	1468.7
2/1/2020 0:00	1472.3	1472.3
2/2/2020 0:00	1533.0	1533.2
2/3/2020 0:00	1507.8	1507.9
2/4/2020 0:00	1472.5	1472.6
2/5/2020 0:00	1470.6	1470.6
2/6/2020 0:00	1518.0	1517.5
2/7/2020 0:00	1483.3	1483.3
2/8/2020 0:00	1501.9	1501.7
2/9/2020 0:00	1573.6	1573.7
2/10/2020 0:00	1492.8	1492.7
2/11/2020 0:00	1496.8	1496.7
2/12/2020 0:00	1470.8	1470.7
2/13/2020 0:00	1509.3	1509.3
2/14/2020 0:00	1547.5	1547.7
2/15/2020 0:00	1472.4	1472.5
2/16/2020 0:00	1508.3	1508.3
2/17/2020 0:00	1490.5	1490.4
2/18/2020 0:00	1488.4	1488.5
2/19/2020 0:00	1469.5	1469.5
2/20/2020 0:00	1472.3	1472.1
2/21/2020 0:00	1496.3	1496.4
2/22/2020 0:00	1464.5	1464.4
2/23/2020 0:00	1466.1	1466.0
2/24/2020 0:00	1466.7	1466.6
2/25/2020 0:00	1469.8	1469.7
2/26/2020 0:00	1467.3	1467.3
2/27/2020 0:00	1476.2	1476.2
2/28/2020 0:00	1462.5	1462.5
2/29/2020 0:00	1468.7	1468.6
3/1/2020 0:00	1499.7	1499.7
3/2/2020 0:00	1480.5	1480.5
3/3/2020 0:00	1479.6	1479.6
3/4/2020 0:00	1486.8	1486.6
3/5/2020 0:00	1471.5	1471.5
3/6/2020 0:00	1466.6	1467.2
3/7/2020 0:00	1466.4	1466.4
3/8/2020 0:00	1484.4	1484.3
3/9/2020 0:00	1486.7	1486.6
3/10/2020 0:00	1486.1	1466.2
3/11/2020 0:00	1529.0	1529.1
3/12/2020 0:00	1474.5	1474.4
3/13/2020 0:00	1489.4	1489.4
3/14/2020 0:00	1463.6	1463.8
3/15/2020 0:00	1473.5	1473.5
3/16/2020 0:00	1468.3	1468.4
3/17/2020 0:00	1467.2	1467.1
3/18/2020 0:00	1465.3	1465.3
3/19/2020 0:00	1468.4	1468.1

3/20/2020 0:00	1474.8	1474.8
3/21/2020 0:00	1467.1	1467.0
3/22/2020 0:00	1469.2	1468.6
3/23/2020 0:00	1464.0	1464.1
3/24/2020 0:00	1491.3	1491.4
3/25/2020 0:00	1503.4	1503.5
3/26/2020 0:00	1472.3	1472.3
3/27/2020 0:00	1471.1	1471.0
3/28/2020 0:00	1464.6	1464.5
3/29/2020 0:00	1467.3	1467.1
3/30/2020 0:00	1479.0	1479.0
3/31/2020 0:00	1462.7	1462.8
4/1/2020 0:00	1493.8	1493.8
4/2/2020 0:00	1523.9	1523.9
4/3/2020 0:00	1478.6	1478.7
4/4/2020 0:00	1506.8	1506.7
4/5/2020 0:00	1515.1	1515.0
4/6/2020 0:00	1524.2	1524.4
4/7/2020 0:00	1494.7	1494.7
4/8/2020 0:00	1513.4	1513.3
4/9/2020 0:00	1470.7	1470.6
4/10/2020 0:00	1601.8	1601.9
4/11/2020 0:00	1469.5	1469.6
4/12/2020 0:00	1496.9	1496.6
4/13/2020 0:00	1465.3	1465.5
4/14/2020 0:00	1466.4	1466.4
4/15/2020 0:00	1510.9	1510.9
4/16/2020 0:00	1469.4	1469.3
4/17/2020 0:00	1470.4	1470.6
4/18/2020 0:00	1507.5	1507.3
4/19/2020 0:00	1466.1	1466.2
4/20/2020 0:00	1505.1	1505.0
4/21/2020 0:00	1469.6	1469.7
4/22/2020 0:00	1470.1	1470.1
4/23/2020 0:00	1506.7	1507.0
4/24/2020 0:00	1492.3	1492.3
4/25/2020 0:00	1481.4	1481.4
4/26/2020 0:00	1492.0	1492.2
4/27/2020 0:00	1541.1	1541.1
4/28/2020 0:00	1475.8	1475.8
4/29/2020 0:00	1477.4	1477.5
4/30/2020 0:00	1462.6	1462.6
5/1/2020 0:00	1484.2	1484.3
5/2/2020 0:00	1487.6	1487.5
5/3/2020 0:00	1512.3	1512.4
5/4/2020 0:00	1559.1	1559.2
5/5/2020 0:00	1470.9	1470.8
5/6/2020 0:00	1468.3	1468.1
5/7/2020 0:00	1466.2	1466.2
5/8/2020 0:00	1476.4	1476.4
5/9/2020 0:00	1509.2	1509.1
5/10/2020 0:00	1506.8	1506.6
5/11/2020 0:00	1558.3	1558.5
5/12/2020 0:00	1507.2	1507.2
5/13/2020 0:00	1511.8	1511.6
5/14/2020 0:00	1493.6	1493.6
5/15/2020 0:00	1472.5	1472.5
5/16/2020 0:00	1471.3	1471.8
5/17/2020 0:00	1502.1	1501.5
5/18/2020 0:00	1559.0	1559.1
5/19/2020 0:00	1466.8	1467.2
5/20/2020 0:00		Operations Shutdown
5/21/2020 0:00		Operations Shutdown
5/22/2020 0:00		Operations Shutdown
5/23/2020 0:00		Operations Shutdown
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5/25/2020 0:00	1486.7	1487.5
5/26/2020 0:00		Operations Shutdown
5/27/2020 0:00	1511.0	1481.6
5/28/2020 0:00	1511.8	1511.0
5/29/2020 0:00	1522.1	1522.2
5/30/2020 0:00	1497.3	1496.9
5/31/2020 0:00	1532.5	1532.5

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6/2/2020 0:00	1499.4	1498.9
6/3/2020 0:00	1470.5	1470.6
6/4/2020 0:00	1460.0	1512.0
6/5/2020 0:00	1502.6	1521.3
6/6/2020 0:00	1520.5	1520.7
6/7/2020 0:00	1469.7	1469.5
6/8/2020 0:00	1461.6	1461.5
6/9/2020 0:00	1480.8	1480.9
6/10/2020 0:00	1477.8	1477.6
6/11/2020 0:00	1491.6	1491.7
6/12/2020 0:00	1519.9	1519.8
6/13/2020 0:00	1518.1	1518.3
6/14/2020 0:00	1506.3	1506.3
6/15/2020 0:00	1462.6	1462.7
6/16/2020 0:00	1492.8	1492.6
6/17/2020 0:00	1593.7	1593.7
6/18/2020 0:00	1519.8	1519.8
6/19/2020 0:00	1507.5	1507.6
6/20/2020 0:00	1492.4	1492.5
6/21/2020 0:00	1483.3	1483.3
6/22/2020 0:00	1470.7	1470.7
6/23/2020 0:00	1512.6	1512.8
6/24/2020 0:00	1502.8	1502.8
6/25/2020 0:00	1499.6	1499.6
6/26/2020 0:00	1498.6	1498.6
6/27/2020 0:00	1499.6	1499.6
6/28/2020 0:00	1512.0	1512.1
6/29/2020 0:00	1530.6	1530.5
6/30/2020 0:00	1486.4	1486.5
7/1/2020 0:00	1491.7	1491.7
7/2/2020 0:00	1521.8	1521.7
7/3/2020 0:00	1485.8	1485.9
7/4/2020 0:00	1497.4	1497.2
7/5/2020 0:00	1517.6	1517.7
7/6/2020 0:00	1465.8	1465.9
7/7/2020 0:00	1518.7	1518.8
7/8/2020 0:00	1557.6	1557.7
7/9/2020 0:00	1490.7	1490.8
7/10/2020 0:00	1565.4	1565.6
7/11/2020 0:00	1505.2	1495.6
7/12/2020 0:00	1505.4	1519.8
7/13/2020 0:00	1505.4	1505.4
7/14/2020 0:00	1505.3	1505.4
7/15/2020 0:00	1492.7	1492.7
7/16/2020 0:00	1523.7	1523.8
7/17/2020 0:00	1476.4	1476.4
7/18/2020 0:00	1501.4	1501.2
7/19/2020 0:00	1494.8	1494.9
7/20/2020 0:00	1474.4	1474.1
7/21/2020 0:00	1470.8	1470.8
7/22/2020 0:00	1524.8	1524.8
7/23/2020 0:00	1515.9	1515.9
7/24/2020 0:00	1521.9	1522.0
7/25/2020 0:00	1518.9	1519.0
7/26/2020 0:00		Operations Shutdown
7/27/2020 0:00		Operations Shutdown
7/28/2020 0:00	1506.5	1482.6
7/29/2020 0:00	1510.8	1511.1
7/30/2020 0:00		Operations Shutdown
7/31/2020 0:00		Operations Shutdown
8/1/2020 0:00		Operations Shutdown