SunCoke Energy

Indiana Harbor Coke Company
3210 Watling Street
East Chicago, IN 46312

Received
State of Indiana

MAY 0 3 2019
4 · 30
Dept of Environmetal Management
Office of Air Quality

April 29, 2019

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ 90-5-2-1-08555/1

Air Enforcement Division Director
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
1200 Pennsylvania Ave, NW Mail Code: 2242A
Washington, DC 20460

Compliance Tracker
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency – Region 5
77 West Jackson Blvd. AE-18J
Chicago, IL 60604-3590
r5airenforcement@epa.gov

Susan Tennenbaum
U.S. Environmental Protection Agency
Region 5, C-14J
77 West Jackson Blvd.
Chicago, IL 60604
tennenbaum.susan@epa.gov

Phil Perry
Indiana Department of Environmental Management
Chief, Air Compliance and Enforcement Branch
100 North Senate Avenue
MC-61-53, IGCN 1003
Indianapolis, IN 46204-2251

Elizabeth A. Zlatos
Indiana Department of Environmental Management
Office of Legal Counsel
100 North Senate Avenue
MC-60-01 IGCN 1307
Indianapolis, IN 46204-2251
bzlatos@idem.in.gov

RE: Consent Decree, *United States, et al. v. Indiana Harbor Coke Company, et al.*
Indiana Harbor Coke Company, LLC (TV Permit T089-36826-00382)
Submission of the 1st 2019 Semi-Annual Report

To Whom It May Concern,

The United States, the State of Indiana, Indiana Harbor Coke Company (IHCC), SunCoke Energy, Inc. (SunCoke), and Cokenergy, LLC (Cokenergy) are parties to a Consent Decree (CD) lodged in federal court on January 25, 2018 with an Effective Date of October 25, 2018.

Pursuant to the CD, IHCC is submitting the 1st 2019 Semi-Annual Report for IHCC. IHCC and SunCoke prepared the enclosed Report in accordance with Paragraph 51 of the CD. This Report contains the information required by Paragraphs 51.a. through q. of the CD, with respect to the time period from October 25, 2018 through March 31, 2019.

SunCoke Energy

Indiana Harbor Coke Company
3210 Watling Street
East Chicago, IN 46312

If you have any questions regarding this report, please contact me at (219) 378-3968 or email me at jlkirby@suncoke.com.

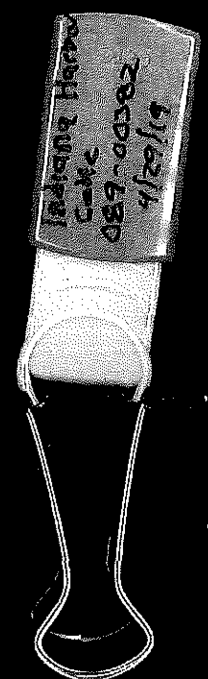
Sincerely,

Justin L. Kirby
Environmental Manager

cc:

East Chicago Public Library
2401 E. Columbus Drive
East Chicago, IN 46312

East Chicago Public Library
1008 W. Chicago Avenue
East Chicago, IN 46312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TO: Air Quality
ROUTE: IDEM
MSC:

70182290000028234503

Environ Mgmt

Phil Perry
Indiana Department of Environmental Management
Chief, Air Compliance and Enforcement Branch
100 North Senate Avenue
MC-61-53, IGCN 1003
Indianapolis, IN 46204-2251

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SunCoke Energy

Indiana Harbor Coke Company
3210 Watling Street
East Chicago, IN 46312

If you have any questions regarding this report, please contact me at (219) 378-3968 or email me at jlkirby@suncoke.com.

Sincerely,

Justin L. Kirby
Environmental Manager

cc:

East Chicago Public Library
2401 E. Columbus Drive
East Chicago, IN 46312

East Chicago Public Library
1008 W. Chicago Avenue
East Chicago, IN 46312

Indiana Harbor Coke Company
SunCoke Energy, Inc.

Consent Decree
Semi-Annual Report

Reporting Period: October 25, 2018 – March 31, 2019

Report Table of Contents

Attachments

1.0 Introduction

The United States, the State of Indiana, Indiana Harbor Coke Company (IHCC), SunCoke Energy, Inc., and Cokenergy, LLC (Cokenergy), are parties to a Consent Decree (CD) lodged in the U.S. District Court for the Northern District of Indiana with an Effective Date of October 25, 2018. *See United States, et al. v. Indiana Harbor Coke Company, et al.*, Civil Action No. 2:18-cv-35.

This report is being submitted pursuant to Paragraph 51 of the CD, and includes all information required to be submitted. This report covers the period of October 25, 2018 – March 31, 2019.

2.0 Work performed and progress made toward implementing the requirements of Section IV of the CD (Compliance Requirements), including completion of any milestones;

A. Coke Oven Rebuild Requirements, pursuant to Section IV.A. of the CD

Milestone Time	Milestone Description	Status
On or about March 31, 2017	Complete five (5) Oven Rebuilds for Battery B ("Initial Oven Rebuilds")	Complete
On or before March 31, 2018	Evaluation of the five rebuilt Ovens in Battery B	Complete - Evaluation period 3/31/2017 - 2/28/2018
By April 30, 2018	Notify EPA and IDEM regarding Battery B Oven Rebuilds success	Complete - Notification of Oven Rebuild success submitted 3/21/2018
December 31, 2018	Complete all Oven Rebuilds for Batteries A, C, and D, or Idle any Ovens that will not be rebuilt	Complete – All ovens rebuilt on Batteries A, C, and D
By November 30, 2019	Complete all Oven Rebuilds for Battery B, or Idle any Ovens that will not be rebuilt	In Progress

B. Coke Oven Leak Requirements

Please see section 6.0 for more information regarding compliance with emissions minimization requirements for Coke Oven Leaks from Rebuilt Ovens during the reporting period, pursuant to Paragraph 12 of the Consent Decree. Please see section 8.0 for a list of all Coke Oven Leak RCFAs performed during the reporting period, pursuant to Paragraph 13 of the Consent Decree. A copy of the RCFA report for each Coke Oven Leak from Rebuilt Ovens (as defined in Paragraph 8.k. of the CD) that occurred during the reporting period is included in Attachment A1.

Paragraph 11 of the Consent Decree contains compliance requirements for Coke Oven Leaks from Non-rebuilt Ovens. The Quarterly Deviation Reports included in Attachment E list all of the Coke Oven Leaks from Non-rebuilt Ovens during the reporting period along with the corrective actions taken. In addition, the following practices were implemented for all Coke Oven Leaks from Non-rebuilt Ovens during the reporting period:

- Appropriate response measures, such as adjusting oven damper position to optimize oven draft, were taken as soon as possible after the Leak was observed in order to minimize emissions;
- Coal charge at each affected Non-rebuilt Oven was reduced to no more than a thirty-seven and a half (37.5) ton average on a wet basis; and
- The sulfur content of the coal charged to each affected Non-rebuilt Oven was minimized to the extent practicable.

C. Bypass Venting Requirements

Please see section 19.0 for more information regarding compliance with bypass venting limits and SO_2 limits during the reporting period, pursuant to Paragraphs 14, 15 and 16 of the Consent Decree. Please see section 7.0 for more information regarding emissions minimization during Bypass Venting Incidents during the reporting period, pursuant to Paragraph 17 of the Consent Decree. Please see section 8.0 for a list of all Bypass Venting Incident RCFAs performed during the reporting period, pursuant to Paragraph 18 of the Consent Decree. A copy of the RCFA report for each Bypass Venting Incident (as defined in Paragraph 8.d. of the CD) that occurred during the reporting period, if any, is included in Attachment A2.

D. Enhanced Monitoring Requirements

Please see section 5.0 for more information regarding emissions monitoring and stack testing that occurred during the reporting period, pursuant to Paragraphs 19 - 22 of the Consent Decree.

E. Preventative Maintenance and Operation ("PMO") Plan

Please see section 10.0 for more information regarding the PMO plan required by Paragraph 23 of the Consent Decree. Please see section 11.0 for more information regarding submittal of the Compliance Assurance Plan (CAP) under section 23.c. of the Consent Decree.

F. Mitigation Measures

Please see section 20.0 for more information regarding Mitigation Measures required by Paragraph 24 of the Consent Decree.

G. Permit Requirements

Please see section 12.0 for more information regarding the status of permit applications, pursuant to Paragraphs 27 through 29 of the Consent Decree.

3.0 Any significant modifications to previously-submitted design specifications of any pollution control system, or to monitoring equipment, required to comply with the requirements of Section IV (Compliance Requirements);

At this time, no significant modifications to previously submitted design specifications of any pollution control system or to monitoring equipment are required for compliance with Section IV of this Consent Decree.

4.0 Any significant problems encountered or anticipated in complying with the requirements of Section IV (Compliance Requirements), including implemented or proposed solutions;

No significant problems have been encountered in complying with Section IV of this Consent Decree.

Any potential non-conformances to the PMO plan, required under section IV.D, are included in Section 10.0.

5.0 A summary of the emissions monitoring and testing data collected to demonstrate compliance with a requirement of the Consent Decree;

A. Permanent Flow Monitor (Paragraph 19)

Paragraph 19 of the CD requires installation of a permanent flow monitor to continuously measure the flow rate in the Main Stack within ninety (90) days of the Effective Date of the CD.

The required flow monitor was installed on June 12, 2018 and a Relative Accuracy Test Audit (RATA) was conducted in September 2018. The flow monitor RATA report was submitted to EPA and IDEM by Cokenergy on October 17, 2018 and a copy of the RATA report is included in Attachment B.

B. Meteorological Station (Paragraph 20)

Paragraph 20 of the CD requires installation of a meteorological station at the Facility or purchase of a handheld weather device within thirty (30) days of the Effective Date of the CD.

IHCC purchased twelve (12) new handheld weather devices to monitor and record wind speed and wind direction. These devices were ordered on March 29, 2018 and were received in April of 2018. The wind meters (HoldPeak 866B-WM Digital Anemometers) are being operated and maintained as required.

C. Emissions Tracking System (ETS) Updates (Paragraph 21)

Paragraph 21 of the CD requires IHCC to modify ETS in order to report emissions using the actual flow data from the Main Stack flow monitor within one hundred eighty (180) days of the installation of the Permanent Flow Monitor pursuant to Paragraph 19 of the CD.

ETS was modified to incorporate the new Main Stack flow monitor and began using actual flow data from the new flow monitor on November 28, 2018.

D. Bypass Vent Stack and Main Stack Testing (Paragraph 22)

Paragraph 22 of the CD requires stack testing measuring the emission rate of lead and VOCs from the Main Stack and at least one Bypass Vent Stack within five (5) years of the Effective Date of the CD. Two stack tests, separated by at least eighteen (18) months, are required for measuring the lead emissions and one test is required for VOCs.

Stack testing pursuant to Paragraph 22 is expected to be conducted in conjunction with stack testing required under the Title V permit. Test notifications and test protocols will be submitted to EPA and IEPA as required by the CD.

6.0 A list of all violations of Paragraph 12.a and 12.b, with the date, time and location of visible emissions and the status of any Coke Oven RCFA conducted;

Paragraph 12.a requires that visible emissions from a Rebuilt Oven Coke Oven door must be stopped within fifteen (15) minutes on the push side and forty-five (45) minutes on the coke shed side. Visible emissions from a Coke Oven door may be stopped from the push side within forty-five (45) minutes from the time the visible emissions are first observed for a maximum of two times per Battery in any semi-annual reporting period.

Paragraph 12.b requires that visible emissions from a Rebuilt Oven Coke Oven crown, or from any other part of the Coke Oven that is not the Coke Oven door, must be stopped within thirty (30) minutes. If visible emissions from a Coke Oven crown continue longer than thirty (30) minutes, a Method 9 observation must be conducted no later than one-hundred twenty (120) minutes from the time the visible emissions are first observed.

The following table lists all of the Coke Oven Leaks on Rebuilt Ovens exceeding the time periods set forth in Paragraph 12.a or 12.b of the Consent Decree during this reporting period:

Battery	Oven #	Leak Location	Date	Time Noticed	Time Ended	Duration (hours:minutes)	RCFA Triggered?
B	7	Push Side Door	11/16/18	7:13 AM	10:15 AM	3:02	N
C	36	Push Side Door	11/18/18	4:00 AM	4:16 AM	0:16	N
C	35	Push Side Door	11/19/18	4:48 AM	5:14 AM	0:26	N
C	16	Push Side Door	11/20/18	3:42 AM	4:10 AM	0:19	N
C	33	Push Side Door	11/21/18	11:00 PM	11:30 PM	0:30	N
D	3	Push Side Door	11/30/18	8:22 AM	10:15 AM	1:53	N
C	53	Coke Side Door	12/9/18	4:27 AM	5:17 AM	0:50	N
D	41	Push Side Door	12/15/18	7:27 AM	11:00 AM	3:33	N
D	3	Push Side Door	12/15/18	7:27 AM	11:00 AM	3:33	N
D	3	Push Side Door	1/6/19	7:35 AM	8:05 AM	0:30	N
B	7	Push Side Door	1/10/19	7:17 AM	1:40 PM	6:23	Y
B	4	Push Side Door	1/15/19	6:24 AM	6:45 AM	0:21	N
B	4	Push Side Door	2/18/19	6:57 AM	1:01 PM	6:04	N
D	3	Push Side Door	2/11/19	7:01 AM	7:18 AM	0:17	N
D	3	Push Side Door	2/17/19	8:15 AM	8:35 AM	0:20	N
D	3	Push Side Door	3/26/19	6:40 AM	7:35 AM	0:55	N

Coke Oven Leaks meeting the RCFA Trigger Level are indicated above and additional information on the RCFA(s) can be found in Section 8.0 and Attachment A.

7.0 All failures to comply with the emissions minimization requirements of Paragraph 17 of the Consent Decree;

Emissions Minimization Actions:

(1) IHCC shall reduce coal charge at each Oven from which gases are being bypassed to no more than a forty (40) ton average on a wet basis, if practicable.

(a) There were no Bypass Venting Incidents during the reporting period.

8.0 All RCFAs required by Paragraphs 13 and 18 of this Consent Decree;

A. The following table provides a summary of the Coke Oven RCFAs completed during this reporting period, pursuant to Paragraph 13. Please see Attachment A1 for all Coke Oven RCFAs completed during this reporting period. Additionally, a table showing the status of all corrective actions identified from each RCFA is included in Attachment A3.

RCFA #	Start Date	Battery	Oven #	Leak Location	Duration	RCFA Status
9089	1/10/19	B	7	Push Side	6 hours 23 min	COMPLETE

B. The following table provides a summary of the Bypass Venting Incident RCFAs completed during this reporting period, pursuant to Paragraph 18. Please see Attachment A2 for all Bypass Venting Incident RCFAs completed during this reporting period. Additionally, a table showing the status of all corrective actions identified from each RCFA is included in Attachment A4.

RCFA #	Start Date	Description	RCFA Status
		No Bypass Venting Incidents occurred this reporting period.	

9.0 The status of any corrective actions required under Paragraphs 13 and 18 that were not completed at the time of the submission of any previous report required under Paragraphs 13 and 18;

Paragraph 51(h) requires reporting in this semi-annual report the status of all corrective actions not completed prior to the submission of the previous semi-annual report. Attachments A3 and A4 outline the status of all corrective actions identified from each Coke Oven Leak and Bypass Venting Incident RCFA in this semi-annual reporting period. As this is the first semi-annual report, there are no previous corrective actions to be reported on.

10.0 Any updated PMO Plan required by Paragraph 23 of this Consent Decree or any failure to follow a PMO Plan;

The PMO Plan was submitted to EPA and IDEM on June 28, 2018. The PMO Plan was accepted by the agency on February 14, 2019. Please see Attachment C for a current version of the plan.

There have been no failures to follow the PMO Plan requirements during this reporting period.

11.0 Submittal of the CAP when required by Paragraph 23.c of this Consent Decree, any updates to the CAP, and any instances when the CAP had to be implemented to ensure compliance with PM or SO_2 limits;

Paragraph 23.c of the CD requires IHCC to evaluate monthly production and monthly sulfur content of the dry coal to identify when they exceed the levels specified in the CD for "High Production Level Months" in two consecutive months. This requirement has been included in the PMO Plan. As outlined in the table below, no exceedances of the High Production Levels occurred during the reporting period.

Month/Year	Average Monthly Tons of Dry Coal Charged	Average Monthly Sulfur Content of Dry Coal
October 2018	115,615	0.85%
November 2018	120,670	0.83%
December 2018	125,729	0.80%
January 2019	121,424	0.85%
February 2019	109,227	0.87%
March 2019	120,331	0.90%

12.0 Status of permit applications and a summary of all permitting activity pertaining to compliance with this Consent Decree;

IHCC permitting status and compliance:

- The permit application to incorporate the required elements of the CD into the facility operating permit was submitted within ninety (90) days of the effective date on January 4, 2019 as required by Paragraph 27.a. A copy of the submitted application is included in Attachment D.

- The application seeking a site-specific revision to the Indiana State Implementation Plan ("SIP") was submitted within ninety (90) days of the effective date on December 19, 2018 as required by Paragraph 27.b. A copy of the submitted application is included in Attachment D.

13.0 A description of all noncompliance with the requirements in Section VII (Supplemental Environmental Projects);

This is a Cokenergy-only obligation; therefore, details are not included in this report.

14.0 All failures to comply with the reporting requirements in Paragraphs 51 through 55;

There were no failures to comply with the reporting requirements set forth in Paragraphs 51 through 55 of the Consent Decree during this reporting period.

15.0 Copies of all Quarterly Deviation and Compliance Monitoring Reports and semi-annual and annual compliance certifications required under the Defendants' Permits to both EPA and IDEM;

For the IHCC facility, quarterly deviation and compliance monitoring reports submitted for the time period covered by this report are included in Attachment E1. All semi-annual and annual compliance certifications submitted during the reporting period are included in Attachment E2.

16.0 The dates, times, and duration of any Lightning Stand-Downs during the reporting period;

The dates, times, and duration of all Lightning Stand-Downs during the reporting period can be found in Attachment F.

17.0 The dates, times, and duration of any power outages during the reporting period;

There were no instances of power outages during the reporting period.

18.0 The dates, times, and duration of any Coke Oven Leaks caused by high winds and wind speed and direction data for the time of the Coke Oven Leaks;

The dates, times, and duration of all coke oven leaks caused by high winds during the reporting period can be found in Attachment G. For each coke oven leak caused by high winds, wind speed and direction data is also included.

19.0 Compliance with Bypass Venting Limits

Paragraph 14.a of the CD limits annual bypass venting to a maximum of 12% from January 1, 2017, through December 31, 2019. Paragraph 15 of the CD limits daily bypass venting to a maximum of 19% on a twenty-four (24) hour basis.

No exceedances of the annual or daily bypass venting limits occurred during the reporting period. The table below lists the actual annual venting for calendar years 2017 and 2018. Actual daily bypass venting percentages for each day during the reporting period are included in Attachment H.

Year	Annual Bypass Venting
2017	7.72%
2018	6.01%

20.0 Mitigation Measures

Paragraph 25 of the CD requires IHCC to maintain two rebuilt quench towers equipped with 1.5" thick, 2" x 6" wooden baffles placed 30 degrees to the gas stream, and placed 3" apart.

IHCC has maintained the two rebuilt quench towers as required during the reporting period.

CERTIFICATION OF DOCUMENT

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Patrick A Nigl

Patrick Nigl
General Manager – Indiana Harbor and Coke Company

April 29, 2019
Date

Attachment A1

Coke Oven Leak RCFAs Completed

SunCoke Energy 5 Why's RCFA Report

SunCoke Energy
The Higher Degree

RCFA Name:	IHO 01_10_19 - B7 Door Leak Summary RCFA	**Report Date:**	04/05/2019
Report #:	9089	**Site:**	IH
RCFA Facilitator:	JLKIRBY	**Location:**	DR-B07-01
RCFA Type:	Environmental	**Location name:**	DOOR, OVEN, PUSHER SIDE
RCFA Level:	Level III	**Cost Impact:**	$0.00
Date and Time:	Jan 10, 2019, 5:00 AM		

Section1 - General Information

Executive Summary:

On 01/10/2019 at 7:17 AM, there was a coke side door leak reported on B7 that triggered a Summary RCFA.

On 01/09/2019 at 8:02 AM, B7 experienced a leak caused by high winds (33 mph) that exceeded 15 minutes on the P/S. This cycle was charged on 01/08/2019 at 5:00 AM.

On 01/10/2019 at 7:17 AM, B7 experience a leak attributed to issues related to oven B6, which hasn't been rebuilt and has known issues with the wall and the downcomer with oven B7. This cycle was charged on 01/10/2019 at 4:55 AM.

Since oven B7 experienced Coke Oven Leaks in two consecutive Coking Cycles, with one leak attributed to high winds and another attributed to "impacts from another Oven within the same bank" as defined by the consent decree, paragraph 13.a, a Summary RCFA was conducted.

Section 2 - Cause and Effect Analysis

Cause and Effect Analysis:
Door leak on B7 was due to poor draft due to sharing wall with B6 that has not been rebuilt.

SunCoke Energy 5 Why's RCFA Report

SunCoke Energy
The Higher Degree

Section 3 - RCFA Team Members

Name	Person's Site
John Deal	IH
Justin Kirby	

Section 4 - Causes

Line#	Why?	Cause	Is root?
1	Why was the RCFA Trigger Level reached?	Oven B7 experience Coke Oven Leaks in two consecutive Coking Cycles.	0
2	Why were the leaks in two consecutive Coking Cycles?	There was insufficient draft in oven B7.	0
3	Why was there insufficent draft in B7	Oven B7 shares a wall with oven B6 that is not rebuilt.	1

Section 5 - CORRECTIVE ACTIONS

Corrective Actions Identified

CA#	Description of Corrective Action	Responsible Person	Target Comp Date
1172347	Complete rebuild on B6	JLKIRBY	11/30/2019

All RCFAs Report Header

RCFA Name:	B7 IHO Summary RCFA - 01/10/2019		**Report Date:**	1/15/2019
Report #:	9089		**Site:**	IHO
RCFA Facilitator:	JLKIRBY		**Location:**	DR-B07-01
RCFA Type:	Environmental		**Asset:**	43854

Question #:

CD Required RCFA Section 1 - General Information

Was the Coke Oven Leak caused by the high winds, equipment maintenance or malfunction unrelated to Oven Structural Issues, another oven under the same HRSG? Was the Coke Oven Leak caused by acts or omissions not related to requipment owned or operated by SunCoke Energy or Cokenergy? (i.e. power outage)		Y
If yes, answer only questions 1 - 5 (Summary RCFA)		If no, complete entire RCFA process and form (Full RCFA)

1

Executive Summary:					
Battery:	B	Oven Number:	7	Leak Location (P/S, C/S, Crown):	P/S
Date:	1/10/2019				
Observed Leak Start Time:	1/10/19 7:17 AM				
Observed Leak End Time:	1/10/19 1:40 PM				
Duration of Leak:	6 hr 23 min				

2

Was the Coke Oven Leak caused by high winds?	Y
If yes, wind speed and direction for the time of the Coke Oven Leak is required.	
Wind Speed Data: On 01/09/2019, wind speed average 18.3 mph with gusts up to 33 mph. Wind direction was southeast.	

Was the Coke Oven Leak caused by caused by impacts from adjacent Ovens (i.e. Ovens under the same HRSG)?	Y
If yes, identification of the causes of those impacts is required.	
Indentified Causes: Oven B7, which was rebuilt in 2017, is adjacent to Oven B6, which has yet to be rebuilt. B6 has a crack in the downcomer that extends into B7, negatively impact environmental control on B7.	

3

Were any actions taken to stop the Coke Oven Leak?	Y
If yes, a description of the actions taken is required.	
Description of actions: For the leak on 01/09/2019, the burner adjusted sole flues and increased draft. For the leak on 01/10/2019, the burner closed the door holes on the C/S and closed the sole flues on both sides of the oven and verified that the P/S door was sufficiently tightened. The burner opened the door holes on B6 to relieve some pressure on B7 as well.	

4

Date of Implentation of Corrective Action(s):	1/11/2019
Description of corrective action(s) that are necessary to prevent or reduce the likelihood of a repeated Coke Oven Leak at this Oven: B6 was charged simultaneously with B7, causing issues with a crack between the two ovens. Moving forward, as of 01/11/2019, B6 will no longer be charged with odd ovens (B5 and B7) until it is properly rebuilt. This will apply to ovens B12, which hasn't been rebuilt, and B11, which has been rebuilt. The rest of B Battery is currently being rebuilt, with an expected completion by 11/30/2019.	

5

Multiple Leak Start/End Information:	Leak #1	Leak #2	Leak #3	Leak #4	Leak #5	Leak #6	Leak #7	Leak #8	Leak #9	Leak #10
Leak Start Date/Time	1/9/19 8:02 AM	1/10/19 7:17 AM								
Leak End Date/Time	1/9/19 11:00 AM	1/10/19 1:40 PM								
If the Coke Oven Leaks involved multiple time periods of emissions, the starting and ending dates/times of each period must be documented, to the extent known.										

6

Has communication occurred with Cokenergy when conducting a Full RCFA?	N/A
Only required for Full RCFA. Summary RCFA does not require communication.	

7

Any applicable information for previous Leaks on this Oven:

8

Any applicable HRSG information:

Attachment A2

Bypass Venting RCFAs Completed

No Bypass Venting Incidents, as defined in Paragraph 8.d. of the CD, occurred during the reporting period.

Attachment A3

Coke Oven Leak RCFA Corrective Actions

Site	Description of Corrective Action	RCFA Report No.	Reporting Period	Status	Estimated Completion Date	Actual Completion Date
IHCC	Rebuild Oven B6.	9089	1st Semi-Annual Report 2019	IN PROGRESS	11/30/2019	-

Attachment A4

Bypass Venting RCFA Corrective Actions

No Bypass Venting Incidents, as defined in Paragraph 8.d. of the CD, occurred during the reporting period, therefore, there are no corrective actions to report.

Attachment B

Main Stack Flow Meter RATA

Cokenergy LLC
3210 Watling Street MC 2-991
East Chicago, IN 46312

October 17, 2018

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-08555/1

Air Enforcement Division Director
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW Mail Code: 2242A
Washington, DC 20460

Compliance Tracker
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency – Region 5
77 West Jackson Blvd. AE-18J
Chicago, IL 60604-3590

Susan Tennenbaum
U.S. Environmental Protection Agency - Region 5
C-14J
77 West Jackson Blvd
Chicago, IL 60640

Phil Perry
Indiana Department of Environmental Management
Chief, Air Compliance and Enforcement Branch
100 North Senate Avenue
MC-61-53, IGCN 1003
Indianapolis, IN 46204-2251

Elizabeth A. Zlatos
Indiana Department of Environmental Management
Office of Legal Counsel
100 North Senate Avenue
MC-60-01, IGCN 1307
Indianapolis, IN 46204-2251

RE: Consent Decree, *United States, et. al. v. Indiana Harbor Coke Company, et. al.*
Cokenergy, LLC (Part 70 Permit No. T089-36965-00383)
Cokenergy Flow Monitor Initial Certification and Relative Accuracy Test Audit Report

To Whom It May Concern:

Pursuant to the proposed Consent Decree (CD) entered in federal court on August 13, 2018, Cokenergy is submitting this Relative Accuracy Test Audit (RATA) report for the volumetric flow monitoring system installed on the Cokenergy main stack (Stack 201) in accordance with CD paragraph 19. The RATA was completed on September 12, 2018 and the 7-day calibration drift test was completed between September 8 and September 14, 2018.

The results from the calibration drift test ranged from 0% to 0.4%, well within the ≤ 3% of span standard. The RATA results for the flow monitor were 6.40% and 4.09% for the sulfur dioxide (SO_2) emission rate, both well within the ≤ 20% standard from the applicable performance specification.

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties

Cokenergy LLC

for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact me at (219) 397-4626.

Sincerely,

Luke E. Ford
Director EH&S

cc: East Chicago Public Libraries

East Chicago Public Library
2401 E. Columbus Drive
East Chicago, Indiana 46312

East Chicago Public Library
1008 W. Chicago Avenue
East Chicago, Indiana 46312

Electronic Copies to:
R5airenforcement@epa.gov
tennenbaum.susan@epa.gov
bzlatos@idem.in.gov

Justin Kirby
jlkirby@suncoke.com

Katie Batten
kmbatten@suncoke.com

file: X:// 673

CONTINUOUS EMISSIONS MONITORING SYSTEM RELATIVE ACCURACY DETERMINATION AND CERTIFICATION TEST

Performed At

Primary Energy
Cokenergy Facility
HRCC Stack 201
East Chicago, Indiana

Test Dates

September 12, 2018 (RATA)
September 8 through 14, 2018 (Calibration Drift testing)

Report No.

TRC Environmental Corporation Report 305091

Report Submittal Date

October 15, 2018

TRC Environmental Corporation
7521 Brush Hill Road
Burr Ridge, Illinois 60527 T 312-533-2042
USA F 312-533-2070

Report Certification

I certify that to the best of my knowledge:

- Testing data and all corresponding information have been checked for accuracy and completeness.
- Sampling and analysis have been conducted in accordance with the approved protocol and applicable reference methods (as applicable).
- All deviations, method modifications, or sampling and analytical anomalies are summarized in the appropriate report narrative(s).

Gavin Lewis
Project Manager

October 15, 2018
Date

TRC was operating in conformance with the requirements of ASTM D7036-04 during this test program.

Bruce Randall
TRC Emission Testing Technical Director

TABLE OF CONTENTS

CONTINUOUS EMISSIONS MONITORING SYSTEM RELATIVE ACCURACY DETERMINATION AND CERTIFICATION TEST

1.0 INTRODUCTION

Cokenergy installed a volumetric flow monitoring system as part of their existing Continuous Emissions Monitoring System (CEMS) on the HRCC Stack 201.

The purpose of this test program was to certify the HRCC Stack 201 CEMS. TRC Environmental Corporation (TRC) performed the relative accuracies tests on September 12, 2018 while the unit was operating at greater than 50% of normal load. Primary Energy personnel performed the seven-day calibration drift tests on September 8 through 14. All tests were performed in accordance with methods described in the Code of Federal Regulations, Title 40, Part 60 (40CFR60), Appendix B, Performance Specifications 2 and 3. The test program was conducted according to the Indiana Department of Environmental Management (IDEM) Relative Accuracy Test Audit Notification Protocol dated August 1, 2018.

1.1 Project Contact Information

Participants		
Test Facility	Primary Energy Cokenergy Facility East Chicago, Indiana	Mr. Luke Ford Director EH&S 219-397-4626 (phone) lford@primaryenergy.com
Test Coordinator	Primary Energy 3210 Watling Street East Chicago, Indiana 46312 Permit No. T089-36965-00383	
Air Emissions Testing Body (AETB)	TRC Environmental Corporation 7521 Brush Hill Road Burr Ridge, Illinois 60527	Mr. Gavin Lewis Project Manager 312-533-2025 (phone) 312-533-2070 (fax) glewis@trcsolutions.com

William Manny, Ryan Novosel and Gavin Lewis of TRC conducted the testing. Documentation of the on-site ASTM D7036-04 Qualified Individual(s) (QI) can be located in the appendix to this report.

No personnel from the IDEM observed the testing.

2.0 SUMMARY OF RESULTS

The results of these tests are presented in the following tables. Tables 2.1 and 2.2 present a summary of the actual performance of each component of the CEMS system, as compared to United States Environmental Protection Agency (USEPA) 40 CFR Part 60 specifications.

Table 2.1 – Gaseous Results

Load	Parameter	Units	Performance Specifications (40CFR60)		CEMS Performance
			Specification No.	Acceptance Criteria	Relative Accuracy
> 50%	SO_2	ppmvd	2	RA ≤ 20% of the Reference Method	2.68 %
> 50%	SO_2	lb/hr	2	RA ≤ 20% of the Reference Method	4.09 %
> 50%	O_2	% dry	3	RA ≤ 1.0% difference for %O_2	0.20 %vol diff

Table 2.2 – Volumetric Flowrate, Performance Specification 6

Serial Number: 031518-000-1118-UMCR		Span: 0 – 1,000 kscfm	
Criteria	Test Date(s)	Required Performance	Actual Performance
Calibration Error	09/08/18 – 09/14/18	≤ 3.0% of high level value for each of 7 days	≤ 0.4 %
Relative Accuracy	09/12/18	RA ≤ 20% of the Reference Method (dscfm)	6.40 %

3.0 DISCUSSION OF RESULTS

The complete test results from this program are tabulated in Section 6.0.

The data acquisition and handling system (DAHS) computer printout for the same time periods as the RM testing was used to determine the relative accuracy. The watches of the test crew were synchronized with the CEMS prior to testing.

No problems were encountered with the testing equipment during the course of the test program. Source operation appeared normal during the entire test program and operated at more than 50 percent of full load. The CEMS operation appeared normal with no apparent problems during sampling. No changes or problems were encountered that required modification of any procedures presented in the test plan. No adverse test or environmental conditions were encountered during the conduct of this test program. CEMS operating data was recorded by plant personnel and appended to the report.

4.0 TEST PROCEDURES

All testing, sampling, analytical, and calibration procedures used for this test program were performed in accordance with the methods presented in the following sections. Where applicable, the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods, USEPA 600/R-94/038c, September 1994 was used to supplement procedures.

4.1 Calibration Drift Test

Calibration Drift tests were performed by Primary Energy personnel. A summary of the test data is presented in Section 6.1 and supporting documentation is appended to the report.

4.2 Relative Accuracy Tests

4.2.1 CEMS RATA Test Matrix

Parameter	Reference Methods (RM)	No. of Test Runs	Test Run Length (min)
SO_2	6C (1, 2, 3A, 4 for lb/hr)	10	21
O_2 (CO_2 for flow only)	3A	10	21
Flow	1, 2 and 4	10	≥ 5

4.2.2 Determination of Sample Point Locations by USEPA Method 1

This method is applicable to gas streams flowing in ducts, stacks, and flues and is designed to aid in the representative measurement of pollutant emissions and/or total volumetric flow rates from stationary sources. In order to qualify as an acceptable sample location, it must be located at a position at least two stack or duct equivalent diameters downstream and a half equivalent diameter upstream from any flow disturbance.

The cross-section of the measurement site was divided into a number of equal areas, and the traverse points were then located in the center of these areas. The minimum number of points were determined from Figure 1-2 (non-particulate) of USEPA Method 1.

4.2.3 Volumetric Flow Rate Determination by USEPA Method 2

This method is applicable for the determination of the average velocity and the volumetric flow rate of a gas stream.

The gas velocity head (ΔP) and temperature were measured at traverse points defined by USEPA Method 1. The velocity head was measured with a Type S (Stausscheibe or reverse type) pitot tube and oil-filled manometer; and the gas temperature was measured with a Type K thermocouple. The average gas velocity in the flue was calculated based on: the gas density (as determined by USEPA Methods 3 and 4); the flue gas pressure; the average of the square roots of the velocity heads at each traverse point, and the average flue gas temperature.

4.2.4 Determination of the Concentration of Gaseous Pollutants Using a Multi-Pollutant Sampling System

Concentrations of the pollutants in the following sub-sections were determined using one sampling system. The number of points at which sample was collected was determined in accordance with 40CFR60 specifications.

A straight-extractive sampling system was used. Gas samples were collected for seven (7) minutes at each of three points (0.4, 1.2 and 2.0 meters) along the stack diameter during each test run. A data logger continuously recorded pollutant concentrations and generated one-minute averages of those concentrations. All calibrations and system checks were conducted using USEPA Protocol gases. Three-point linearity checks were performed prior to sampling, and in the event of a failing system bias or drift test (and subsequent corrective action). System bias and drift checks were performed using the low-level gas and either the mid- or high-level gas prior to and following each test run.

The Low Concentration Analyzers (those that routinely operate with a calibration span of less than 20 ppm) used by TRC are ambient-level analyzers. Per Section 3.12 of Method 7E, a Manufacturer's Stability Test is not required for ambient-level analyzers. Analyzer interference tests were conducted in accordance with the regulations in effect at the time that TRC placed an analyzer model in service.

4.2.4.1 CO_2 Determination by USEPA Method 3A

This method is applicable for the determination of carbon dioxide (CO_2) concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The CO_2 analyzer was equipped with a non-dispersive infrared (IR) detector.

4.2.4.2 O_2 Determination by USEPA Method 3A

This method is applicable for the determination of O_2 concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The O_2 analyzer was equipped with a paramagnetic-based detector.

4.2.4.3 SO_2 Determination by USEPA Method 6C

This method is applicable for the determination of SO_2 concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The SO_2 analyzer was equipped with an ultraviolet (UV) detector.

4.2.5 Moisture Determination by USEPA Method 4

This method is applicable for the determination of the moisture content of stack gas.

A gas sample was extracted at a constant rate from the source. Moisture was removed from the sample stream by a series of pre-weighed impingers immersed in an ice bath. A minimum of 21 dry standard cubic feet of flue gas was collected during each sample run.

5.0 QUALITY ASSURANCE PROCEDURES

TRC integrates our Quality Management System (QMS) into every aspect of our testing service. We follow the procedures specified in current published versions of the test Method(s) referenced in this report. Any modifications or deviations are specifically identified in the body of the report. We routinely participate in independent, third party audits of our activities, and maintain:

- Accreditation from the Louisiana Environmental Laboratory Accreditation Program (LELAP);
- Accreditation from the Stack Testing Accreditation Council (STAC) and the American Association for Laboratory Accreditation (A2LA) that our operations conform with the requirements of ASTM D 7036 as an Air Emission Testing Body (AETB).

These accreditations demonstrate that our systems for training, equipment maintenance and calibration, document control and project management will fully ensure that project objectives are achieved in a timely and efficient manner with a strict commitment to quality.

All calibrations are performed in accordance with the test Method(s) identified in this report. If a Method allows for more than one calibration approach, or if approved alternatives are available, the calibration documentation in the appendices specifies which approach was used. All measurement devices are calibrated or verified at set intervals against standards traceable to the National Institute of Standards and Technology (NIST). NIST traceability information is available upon request.

ASTM D7036-04 specifies that: *"AETBs shall have and shall apply procedures for estimating the uncertainty of measurement. Conformance with this section may be demonstrated by the use of approved test protocols for all tests. When such protocols are used, reference shall be made to published literature, when available, where estimates of uncertainty for test methods may be found."* TRC conforms with this section by using approved test protocols for all tests.

6.0 TEST RESULTS SUMMARIES

6.1 Calibration Drift Test Results Summary

Owner: Primary Energy
Plant: Cokenergy Facility
Source ID: HRCC Stack 201

CEM Component: **Volumetric Flow**
Instrument Span: 0 - 1,000 kscfm
Test Dates: 09/08/18 - 09/14/18
Certification Criteria: 40 CFR 60, Appendix B

Day	Load Level	Date	Time	Reference Value	CEM Value	Difference	Calibration Error %
1	Zero	09/08/18	5:33:10	0.00	3.00	3.00	0.3
2	Zero	09/09/18	5:33:09	0.00	2.00	2.00	0.2
3	Zero	09/10/18	5:33:14	0.00	3.90	3.90	0.4
4	Zero	09/11/18	5:33:12	0.00	3.70	3.70	0.4
5	Zero	09/12/18	5:33:12	0.00	3.90	3.90	0.4
6	Zero	09/13/18	5:33:12	0.00	3.70	3.70	0.4
7	Zero	09/14/18	5:33:11	0.00	3.60	3.60	0.4
1	Span	09/08/18	5:36:10	750.00	749.50	0.50	0.1
2	Span	09/09/18	5:36:08	750.00	749.20	0.80	0.1
3	Span	09/10/18	5:36:15	750.00	750.30	0.30	0.0
4	Span	09/11/18	5:36:14	750.00	750.10	0.10	0.0
5	Span	09/12/18	5:36:13	750.00	750.10	0.10	0.0
6	Span	09/13/18	5:36:12	750.00	750.00	0.00	0.0
7	Span	09/14/18	5:36:13	750.00	750.00	0.00	0.0

Drift Specification: Flow CEM: $\leq$ 3% of span maximum

6.2 Relative Accuracy Summaries

RATA Type: **Sulfur Dioxide (SO_2), ppm**
Regulation: **40CFR60**
RM Used: **6C**

Customer:	Primary Energy			Project #:	305091		
Unit ID:	HRCC			CEM Model:	Thermo Scientific 43i-HL		
Sample Loc:	Stack 201			CEM Serial #:	1152150034		
Use? 1 = Y 0 = N	Test Run	Date	Start Time	End Time	RM SO_2 ppmvd	CEM SO_2 ppmvd	(RM-CEM) Difference (di)
1	1	9/12/18	7:15	7:35	155.5	160.1	-4.6
1	2	9/12/18	8:00	8:20	151.7	154.3	-2.6
1	3	9/12/18	8:40	9:00	155.5	158.0	-2.5
1	4	9/12/18	9:20	9:40	144.9	148.6	-3.7
0	5	9/12/18	10:00	10:20	139.3	143.9	-4.6
1	6	9/12/18	10:45	11:05	132.6	135.5	-2.9
1	7	9/12/18	11:25	11:45	134.6	138.7	-4.1
1	8	9/12/18	12:05	12:25	135.1	138.2	-3.1
1	9	9/12/18	12:45	13:05	128.3	130.4	-2.1
1	10	9/12/18	13:25	13:45	123.3	125.3	-2.0

n	9	
t(0.975)	2.306	
Mean RM Value	140.167	RM avg
Mean CEM Value	143.233	CEM avg
Mean Difference	-3.067	d avg
Standard Deviation	0.899	sd
Confidence Coefficient	0.691	CC
RA based on RM	2.68	%

TRC
Results you can rely on

RATA Type: **Sulfur Dioxide (SO_2), lb/hr**
Regulation: **40CFR60**
RM Used: **2-4, 6C**

Customer:	Primary Energy	Project #:	305091
Unit ID:	HRCC	CEM Model:	Thermo Scientific 43i-HL
Sample Loc:	Stack 201	CEM Serial #:	1152150034

Use? 1 = Y 0 = N	Test Run	Date	Start Time	End Time	RM SO_2 lb/hr	CEM SO_2 lb/hr	(RM-CEM) Difference (di)
1	1	9/12/18	7:15	7:35	995.5	953.3	42.2
0	2	9/12/18	8:00	8:20	985.6	915.4	70.2
1	3	9/12/18	8:40	9:00	978.4	935.2	43.2
1	4	9/12/18	9:20	9:40	899.6	873.7	25.9
1	5	9/12/18	10:00	10:20	867.5	854.9	12.6
1	6	9/12/18	10:45	11:05	837.5	805.9	31.6
1	7	9/12/18	11:25	11:45	844.0	825.2	18.8
1	8	9/12/18	12:05	12:25	855.6	826.7	28.9
1	9	9/12/18	12:45	13:05	807.9	781.9	26.0
1	10	9/12/18	13:25	13:45	760.6	738.5	22.1

n	9	
t(0.975)	2.306	
Mean RM Value	871.844	RM avg
Mean CEM Value	843.922	CEM avg
Mean Difference	27.922	d avg
Standard Deviation	10.071	sd
Confidence Coefficient	7.741	CC
RA based on RM	4.09	%

RATA Type: **Oxygen (O_2), % by volume**
Regulation: **40CFR60**
RM Used: **3A**

Customer:	Primary Energy			Project #:	305091		
Unit ID:	HRCC			CEM Model:	Brand Gaus 4705		
Sample Loc:	Stack 201			CEM Serial #:	11401		
Use? 1 = Y 0 = N	Test Run	Date	Start Time	End Time	RM O_2 % v/v dry	CEM O_2 % v/v dry	(RM-CEM) Difference (di)
1	1	9/12/18	7:15	7:35	12.6	12.8	-0.2
1	2	9/12/18	8:00	8:20	12.7	12.9	-0.2
1	3	9/12/18	8:40	9:00	12.8	13.0	-0.2
1	4	9/12/18	9:20	9:40	13.0	13.2	-0.2
1	5	9/12/18	10:00	10:20	13.0	13.2	-0.2
1	6	9/12/18	10:45	11:05	13.1	13.3	-0.2
1	7	9/12/18	11:25	11:45	13.2	13.4	-0.2
1	8	9/12/18	12:05	12:25	13.4	13.6	-0.2
1	9	9/12/18	12:45	13:05	13.5	13.7	-0.2
0	10	9/12/18	13:25	13:45	13.5	13.7	-0.2

n	9	
t(0.975)	2.306	
Mean RM Value	13.033	RM avg
Mean CEM Value	13.233	CEM avg
Mean Difference	-0.200	d avg
Standard Deviation	0.000	sd
Confidence Coefficient	0.000	CC
RA (Absolute Mean Difference)	0.20	% vol diff.

RATA Type: **Flow, (DSCFM)*, High Load**
Regulation: **40CFR60**
RM Used: **2**

Customer:	Primary Energy - Cokenergy Facility				Project #:	305091	
Unit ID:	HRCC				CEM Model:	--	
Location:	Stack 201				CEM Serial #:	031518-000-1118-UMCR	
Use? 1 = Y 0 = N	Test Run	Date	Start Time	End Time	RM Volumetric Flow (DSCFM)*	CEM Volumetric Flow (DSCFM)*	(RM-CEM) Difference (di)
1	1	9/12/2018	07:15	07:25	643,000	598,000	45,000
0	2	9/12/2018	08:00	08:08	652,000	597,000	55,000
1	3	9/12/2018	08:40	08:49	632,000	592,000	40,000
1	4	9/12/2018	09:20	09:28	623,000	580,000	43,000
1	5	9/12/2018	10:00	10:10	625,000	597,000	28,000
1	6	9/12/2018	10:45	10:54	634,000	598,000	36,000
1	7	9/12/2018	11:25	11:33	630,000	599,000	31,000
1	8	9/12/2018	12:05	12:13	636,000	599,000	37,000
1	9	9/12/2018	12:45	12:53	632,000	601,000	31,000
1	10	9/12/2018	13:25	13:33	619,000	590,000	29,000

n	9	
t(0.975)	2.306	
Mean RM Value	630,444.444	RM avg
Mean CEM Value	594,888.889	CEM avg
Mean Difference	35,555.556	d avg
Standard Deviation	6,207.075	sd
Confidence Coefficient	4,771.172	CC
Relative Accuracy	6.40	% RA

*Standard conditions of 29.92 in/Hg and 68º F

APPENDIX

AETB and QI Information Summary

Facility Name:	Primary Energy – Cokenergy Facility
Location:	HRCC Stack 201
Test Date:	September 12, 2018 (RATA)

Test Parameters:	1, 2, 3A, 4, 6C
QI Last Name:	Lewis
QI First Name:	Gavin
QI Middle Initial:	----
AETB Name:	TRC Environmental Corporation
AETB Phone No:	312-533-2025
AETB Email:	glewis@trcsolutions.com
Group 1 Exam Date:	11/07/2017
Provider Name:	Source Evaluation Society
Provider Email:	qstiprogram@gmail.com
Group 3 Exam Date:	01/05/2018
Provider Name:	Source Evaluation Society
Provider Email:	qstiprogram@gmail.com

This is to Certify that:

Gavin Lewis

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5i, 17, 19, 201A, and 202.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 11/07/2022

Date of Issue: 01-08-2018

Certificate Number: 01249

Edward J MacKinnon
Air Measurements Practice Quality Manager

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gavin Lewis

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 3A, 6C, 7E, 10, 10B, 19, 20, 25A.

CEM Performance Specifications PS2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 01-05-2023

Date of Issue: 01-08-2018

Certificate Number: 01251

Edward J MacKinnon
Air Measurements Practice Quality Manager

This certificate is the exclusive property of TRC and is non-transferable.

Primary Energy Coke

Calibration Report

Created on : Oct 02, 2018 08:07:44

East Chicago, IN

09/08/2018 - 09/14/2018

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
09/08/2018								
	05:33:10	VOL FLOW, KSCFM	Zero	3.0	0.0	0.3	3	Pass
	05:36:10	VOL FLOW, KSCFM	Span	749.5	750.0	0.1	3	Pass
09/09/2018								
	05:33:09	VOL FLOW, KSCFM	Zero	2.0	0.0	0.2	3	Pass
	05:36:08	VOL FLOW, KSCFM	Span	749.2	750.0	0.1	3	Pass
09/10/2018								
	05:33:14	VOL FLOW, KSCFM	Zero	3.9	0.0	0.4	3	Pass
	05:36:15	VOL FLOW, KSCFM	Span	750.3	750.0	0.0	3	Pass
09/11/2018								
	05:33:12	VOL FLOW, KSCFM	Zero	3.7	0.0	0.4	3	Pass
	05:36:14	VOL FLOW, KSCFM	Span	750.1	750.0	0.0	3	Pass
09/12/2018								
	05:33:13	VOL FLOW, KSCFM	Zero	3.9	0.0	0.4	3	Pass
	05:36:13	VOL FLOW, KSCFM	Span	750.1	750.0	0.0	3	Pass
09/13/2018								
	05:33:12	VOL FLOW, KSCFM	Zero	3.7	0.0	0.4	3	Pass
	05:36:12	VOL FLOW, KSCFM	Span	750.0	750.0	0.0	3	Pass
09/14/2018								
	05:33:11	VOL FLOW, KSCFM	Zero	3.6	0.0	0.4	3	Pass
	05:36:13	VOL FLOW, KSCFM	Span	750.0	750.0	0.0	3	Pass

RATA Data Report

9/12/2018 7:15:00 AM - 9/12/2018 7:35:00 AM

Created on : Sep 12, 2018 07:45:19

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
07:15:00	164.8	12.8	11.0	11.7	982.1
07:16:00	162.6	12.8	11.0	11.7	965.2
07:17:00	165.0	12.8	11.0	11.7	984.7
07:18:00	166.2	12.8	11.0	11.7	992.2
07:19:00	163.5	12.8	11.0	11.7	978.9
07:20:00	161.7	12.8	11.0	11.7	958.4
07:21:00	159.4	12.8	11.0	11.7	949.9
07:22:00	157.9	12.8	11.0	11.7	937.5
07:23:00	158.7	12.8	11.0	11.7	942.1
07:24:00	159.0	12.8	11.0	11.7	947.8
07:25:00	158.3	12.8	11.0	11.7	949.0
07:26:00	158.8	12.8	11.0	11.7	933.2
07:27:00	158.8	12.8	11.0	11.7	954.1
07:28:00	157.9	12.8	11.0	11.7	951.5
07:29:00	157.9	12.8	11.0	11.7	937.8
07:30:00	159.7	12.8	11.0	11.7	938.1
07:31:00	158.5	12.8	11.0	11.7	947.0
07:32:00	158.4	12.8	11.0	11.7	954.3
07:33:00	160.1	12.8	11.0	11.7	942.9
07:34:00	157.1	12.8	11.0	11.7	929.9
07:35:00	158.0	12.8	11.0	11.7	942.3
Average :	160.1	12.8	11.0	11.7	953.3

* Invalid Status

RATA Run # 1
Verified By: ______________________

RATA Data Report

East Chicago, IN

9/12/2018 8:00:00 AM - 9/12/2018 8:20:00 AM

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
08:00:00	154.1	12.9	11.1	11.6	928.1
08:01:00	154.0	12.9	11.1	11.6	904.8
08:02:00	156.3	12.9	11.1	11.6	923.9
08:03:00	155.5	12.9	11.1	11.6	927.3
08:04:00	154.0	12.9	11.1	11.6	915.4
08:05:00	154.0	12.9	11.1	11.6	915.9
08:06:00	155.0	12.9	11.1	11.6	921.6
08:07:00	153.1	12.9	11.1	11.6	898.2
08:08:00	154.6	12.9	11.1	11.6	927.7
08:09:00	151.6	12.9	11.1	11.6	899.8
08:10:00	152.5	12.9	11.1	11.6	907.5
08:11:00	151.1	12.9	11.1	11.6	895.1
08:12:00	154.5	12.9	11.1	11.6	926.2
08:13:00	153.8	12.9	11.1	11.6	919.7
08:14:00	153.8	12.9	11.1	11.6	911.0
08:15:00	153.4	12.9	11.1	11.6	905.4
08:16:00	153.7	12.9	11.1	11.6	908.9
08:17:00	154.3	12.9	11.1	11.6	917.5
08:18:00	156.2	12.9	11.1	11.6	910.1
08:19:00	157.5	12.9	11.1	11.6	930.7
08:20:00	157.5	12.9	11.1	11.6	929.3
Average :	154.3	12.9	11.1	11.6	915.4

* Invalid Status

RATA Run # 2
Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 09:01:23

East Chicago, IN

9/12/2018 8:40:00 AM - 9/12/2018 9:00:00 AM

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
08:40:00	156.6	13.0	11.2	11.5	924.5
08:41:00	156.2	12.9	11.2	10.9	919.0
08:42:00	157.7	13.0	11.2	11.5	942.4
08:43:00	157.2	13.0	11.1	12.3	921.1
08:44:00	159.4	13.0	11.2	11.5	944.0
08:45:00	159.4	13.0	11.2	11.5	942.1
08:46:00	159.5	13.0	11.2	11.5	940.8
08:47:00	160.7	13.0	11.2	11.5	950.4
08:48:00	159.3	13.0	11.2	11.5	928.2
08:49:00	160.4	13.0	11.2	11.5	948.3
08:50:00	159.9	13.0	11.2	11.5	952.2
08:51:00	156.4	13.0	11.2	11.5	932.6
08:52:00	157.8	13.0	11.2	11.5	930.6
08:53:00	156.6	13.0	11.2	11.5	927.9
08:54:00	156.5	13.0	11.2	11.5	928.2
08:55:00	157.4	13.0	11.2	11.5	941.2
08:56:00	155.8	13.0	11.2	11.5	919.0
08:57:00	157.9	13.0	11.2	11.5	936.1
08:58:00	158.5	13.0	11.2	11.5	949.9
08:59:00	157.4	13.0	11.2	11.5	927.5
09:00:00	156.9	13.1	11.2	12.2	933.1
Average :	158.0	13.0	11.2	11.5	935.2

* Invalid Status

RATA Run # 3

Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 09:44:42

East Chicago, IN

9/12/2018 9:20:00 AM - 9/12/2018 9:40:00 AM

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
09:20:00	139.3	13.3	11.5	11.3	795.1
09:21:00	142.0	13.3	11.5	11.3	791.3
09:22:00	142.5	13.3	11.5	11.3	795.8
09:23:00	142.2	13.3	11.5	11.3	839.4
09:24:00	143.6	13.3	11.5	11.3	834.1
09:25:00	145.8	13.2	11.4	11.4	847.8
09:26:00	148.3	13.2	11.4	11.4	878.4
09:27:00	149.9	13.2	11.4	11.4	876.8
09:28:00	151.9	13.2	11.4	11.4	891.1
09:29:00	151.7	13.1	11.4	10.7	900.5
09:30:00	152.4	13.2	11.4	11.4	895.6
09:31:00	153.4	13.2	11.4	11.4	907.6
09:32:00	151.2	13.2	11.4	11.4	894.5
09:33:00	153.0	13.2	11.4	11.4	909.5
09:34:00	153.1	13.1	11.4	10.7	918.1
09:35:00	150.3	13.2	11.4	11.4	893.0
09:36:00	150.3	13.1	11.3	11.5	876.6
09:37:00	150.2	13.2	11.4	11.4	897.4
09:38:00	150.1	13.1	11.4	10.7	908.7
09:39:00	151.1	13.2	11.4	11.4	897.7
09:40:00	149.3	13.1	11.3	11.5	898.9
Average :	148.6	13.2	11.4	11.3	873.7

* Invalid Status

RATA Run # 4
Verified By: ______________________

Primary Energy Coke

East Chicago, IN

RATA Data Report

9/12/2018 10:00:00 AM - 9/12/2018 10:20:00 AM

Created on : Sep 12, 2018 10:29:43

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
10:00:00	145.5	13.2	11.4	11.4	863.4
10:01:00	143.8	13.1	11.4	10.7	854.6
10:02:00	143.1	13.2	11.4	11.4	857.2
10:03:00	143.1	13.2	11.4	11.4	860.7
10:04:00	145.4	13.2	11.4	11.4	865.1
10:05:00	144.9	13.2	11.4	11.4	860.7
10:06:00	144.5	13.2	11.4	11.4	852.7
10:07:00	146.2	13.2	11.4	11.4	877.9
10:08:00	145.4	13.2	11.4	11.4	854.3
10:09:00	147.1	13.2	11.4	11.4	878.6
10:10:00	146.1	13.2	11.4	11.4	855.2
10:11:00	148.1	13.2	11.4	11.4	875.8
10:12:00	143.9	13.2	11.4	11.4	859.9
10:13:00	142.1	13.2	11.4	11.4	853.2
10:14:00	143.2	13.2	11.4	11.4	849.6
10:15:00	141.4	13.2	11.4	11.4	832.5
10:16:00	142.9	13.2	11.4	11.4	855.7
10:17:00	141.8	13.2	11.4	11.4	830.3
10:18:00	142.9	13.2	11.4	11.4	849.1
10:19:00	141.7	13.2	11.4	11.4	847.2
10:20:00	139.2	13.2	11.4	11.4	818.3
Average :	143.9	13.2	11.4	11.4	854.9

* Invalid Status

RATA Run # 5
Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 11:07:18

East Chicago, IN

9/12/2018 10:45:00 AM - 9/12/2018 11:05:00 AM

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
10:45:00	136.1	13.2	11.4	11.4	809.3
10:46:00	136.3	13.3	11.5	11.3	804.5
10:47:00	137.9	13.2	11.4	11.4	812.0
10:48:00	136.4	13.3	11.5	11.3	809.8
10:49:00	137.7	13.3	11.5	11.3	818.8
10:50:00	135.1	13.2	11.5	10.6	811.3
10:51:00	137.5	13.3	11.5	11.3	819.8
10:52:00	136.4	13.3	11.5	11.3	818.9
10:53:00	134.7	13.2	11.5	10.6	807.9
10:54:00	136.6	13.3	11.5	11.3	810.1
10:55:00	135.5	13.3	11.5	11.3	812.4
10:56:00	135.6	13.3	11.5	11.3	794.4
10:57:00	136.8	13.3	11.5	11.3	818.3
10:58:00	134.9	13.3	11.5	11.3	803.6
10:59:00	134.2	13.3	11.5	11.3	802.5
11:00:00	134.2	13.3	11.5	11.3	796.4
11:01:00	135.0	13.3	11.5	11.3	799.1
11:02:00	133.1	13.3	11.5	11.3	791.3
11:03:00	134.7	13.3	11.5	11.3	798.8
11:04:00	134.1	13.3	11.5	11.3	799.9
11:05:00	133.0	13.3	11.5	11.3	785.4
Average :	135.5	13.3	11.5	11.2	805.9

* Invalid Status

RATA Run # 6
Verified By:

Primary Energy Coke
East Chicago, IN

RATA Data Report

9/12/2018 11:25:00 AM - 9/12/2018 11:45:00 AM

Created on : Sep 12, 2018 11:48:58
STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
11:25:00	135.8	13.3	11.6	10.5	819.9
11:26:00	135.6	13.4	11.6	11.2	804.7
11:27:00	137.4	13.4	11.6	11.2	816.4
11:28:00	136.4	13.4	11.6	11.2	816.5
11:29:00	138.4	13.4	11.6	11.2	820.0
11:30:00	137.6	13.4	11.6	11.2	816.5
11:31:00	137.8	13.4	11.6	11.2	829.7
11:32:00	137.8	13.4	11.6	11.2	813.5
11:33:00	138.0	13.4	11.6	11.2	825.5
11:34:00	136.5	13.4	11.6	11.2	811.9
11:35:00	138.3	13.4	11.6	11.2	813.9
11:36:00	138.1	13.4	11.6	11.2	818.3
11:37:00	139.4	13.4	11.6	11.2	832.8
11:38:00	139.7	13.4	11.6	11.2	829.1
11:39:00	139.6	13.4	11.6	11.2	822.6
11:40:00	140.9	13.4	11.6	11.2	843.1
11:41:00	139.4	13.4	11.6	11.2	826.3
11:42:00	140.7	13.4	11.7	10.4	834.5
11:43:00	140.5	13.4	11.7	10.4	835.3
11:44:00	141.2	13.4	11.7	10.4	844.8
11:45:00	143.0	13.5	11.7	11.1	853.1
Average :	138.7	13.4	11.6	11.0	825.2

* Invalid Status

RATA Run # 7
Verified By:

Primary Energy Coke

East Chicago, IN

RATA Data Report

9/12/2018 12:05:00 PM - 9/12/2018 12:25:00 PM

Created on : Sep 12, 2018 12:32:29

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
12:05:00	140.5	13.6	11.8	11.0	841.3
12:06:00	139.0	13.6	11.8	11.0	830.5
12:07:00	140.4	13.6	11.8	11.0	835.7
12:08:00	139.6	13.6	11.8	11.0	822.8
12:09:00	138.7	13.6	11.8	11.0	830.5
12:10:00	139.1	13.6	11.8	11.0	827.1
12:11:00	136.9	13.6	11.8	11.0	818.0
12:12:00	137.3	13.6	11.8	11.0	830.1
12:13:00	137.0	13.6	11.8	11.0	814.2
12:14:00	139.1	13.6	11.8	11.0	838.9
12:15:00	139.1	13.6	11.8	11.0	837.5
12:16:00	139.9	13.6	11.9	10.3	838.6
12:17:00	140.5	13.6	11.9	10.3	848.4
12:18:00	140.1	13.7	11.9	10.9	834.7
12:19:00	140.7	13.6	11.9	10.3	859.9
12:20:00	137.1	13.6	11.8	11.0	813.3
12:21:00	135.7	13.7	11.9	10.9	800.5
12:22:00	135.6	13.6	11.9	10.3	818.0
12:23:00	134.5	13.6	11.8	11.0	802.3
12:24:00	135.7	13.6	11.9	10.3	808.2
12:25:00	136.7	13.7	11.9	10.9	810.7
Average :	138.2	13.6	11.8	10.8	826.7

* Invalid Status

RATA Run # 8
Verified By:

Primary Energy Coke

East Chicago, IN

RATA Data Report

9/12/2018 12:45:00 PM - 9/12/2018 1:05:00 PM

Created on : Sep 12, 2018 13:06:53

STACK 201

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
12:45:00	133.8	13.7	11.9	10.9	799.3
12:46:00	135.2	13.7	11.9	10.9	810.2
12:47:00	133.4	13.7	11.9	10.9	792.7
12:48:00	131.5	13.7	11.9	10.9	782.4
12:49:00	129.4	13.7	11.9	10.9	776.5
12:50:00	130.2	13.7	11.9	10.9	779.0
12:51:00	130.6	13.7	12.0	10.2	780.9
12:52:00	130.7	13.7	12.0	10.2	781.6
12:53:00	130.1	13.7	12.0	10.2	785.4
12:54:00	129.5	13.7	12.0	10.2	776.1
12:55:00	130.5	13.7	12.0	10.2	781.3
12:56:00	128.6	13.7	11.9	10.9	771.7
12:57:00	130.1	13.7	12.0	10.2	779.3
12:58:00	130.4	13.7	12.0	10.2	781.2
12:59:00	129.6	13.7	12.0	10.2	788.2
13:00:00	129.0	13.7	11.9	10.9	765.9
13:01:00	131.1	13.7	12.0	10.2	786.6
13:02:00	129.4	13.7	12.0	10.2	776.6
13:03:00	128.4	13.7	12.0	10.2	777.0
13:04:00	129.3	13.7	12.0	10.2	772.7
13:05:00	127.9	13.7	12.0	10.2	775.5
Average :	130.4	13.7	12.0	10.5	781.9

* Invalid Status

RATA Run # 9

Verified By:

RATA Data Report

9/12/2018 1:25:00 PM - 9/12/2018 1:45:00 PM

Time	SO2, PPM	O2 DRY, %	O2 WET, %	H2O, %	SO2, LB/HR
13:25:00	128.4	13.7	11.9	10.9	747.9
13:26:00	125.6	13.7	11.9	10.9	726.3
13:27:00	123.7	13.7	11.9	10.9	730.1
13:28:00	123.7	13.7	11.9	10.9	735.9
13:29:00	124.3	13.7	11.9	10.9	726.1
13:30:00	124.6	13.7	11.9	10.9	733.9
13:31:00	121.5	13.7	11.9	10.9	716.6
13:32:00	123.0	13.7	11.9	10.9	725.0
13:33:00	137.7	13.7	11.9	10.9	813.7
13:34:00	139.8	13.7	11.9	10.9	830.3
13:35:00	136.2	13.7	11.9	10.9	804.0
13:36:00	121.5	13.7	12.0	10.2	720.6
13:37:00	121.0	13.7	11.9	10.9	712.0
13:38:00	121.6	13.7	12.0	10.2	715.4
13:39:00	123.4	13.7	12.0	10.2	736.8
13:40:00	122.6	13.7	12.0	10.2	720.9
13:41:00	123.1	13.7	12.0	10.2	729.5
13:42:00	121.8	13.7	12.0	10.2	719.3
13:43:00	122.9	13.7	12.0	10.2	719.9
13:44:00	123.4	13.8	12.0	10.9	724.5
13:45:00	122.0	13.7	12.0	10.2	719.7
Average :	125.3	13.7	11.9	10.6	738.5

* Invalid Status

RATA Run # 10
Verified By: ________________

RATA Data Report

East Chicago, IN

9/12/2018 7:15:00 AM - 9/12/2018 7:25:00 AM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
07:15:00	677.6	598.3
07:16:00	675.0	596.0
07:17:00	678.6	599.2
07:18:00	678.8	599.4
07:19:00	680.7	601.1
07:20:00	673.9	595.1
07:21:00	677.6	598.3
07:22:00	675.1	596.1
07:23:00	675.0	596.0
07:24:00	677.8	598.5
07:25:00	681.6	601.9
Average :	677.4	598.2

* Invalid Status

RATA Run # 1
Verified By:

RATA Data Report

9/12/2018 8:00:00 AM - 9/12/2018 8:08:00 AM

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
08:00:00	684.0	604.7
08:01:00	667.3	589.9
08:02:00	671.4	593.5
08:03:00	677.3	598.7
08:04:00	675.1	596.8
08:05:00	675.4	597.1
08:06:00	675.3	597.0
08:07:00	666.3	589.0
08:08:00	681.6	602.5
Average :	674.9	596.6

* Invalid Status

RATA Run # 2
Verified By: ______________________

Primary Energy Coke

East Chicago, IN

RATA Data Report

9/12/2018 8:40:00 AM - 9/12/2018 8:49:00 AM

Created on : Sep 12, 2018 08:50:50

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
08:40:00	669.7	592.7
08:41:00	663.0	590.7
08:42:00	678.0	600.0
08:43:00	670.8	588.3
08:44:00	671.9	594.6
08:45:00	670.5	593.4
08:46:00	669.1	592.2
08:47:00	671.0	593.8
08:48:00	661.0	585.0
08:49:00	670.7	593.6
Average :	669.6	592.4

* Invalid Status

RATA Run # 3

Verified By: ____________

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 09:45:11

East Chicago, IN

9/12/2018 9:20:00 AM - 9/12/2018 9:28:00 AM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
09:20:00	646.1	573.1
09:21:00	630.8	559.5
09:22:00	632.1	560.7
09:23:00	668.2	592.7
09:24:00	657.5	583.2
09:25:00	658.9	583.8
09:26:00	671.2	594.7
09:27:00	662.9	587.3
09:28:00	664.8	589.0
Average :	654.7	580.4

* Invalid Status

RATA Run # 4

Verified By:

RATA Data Report

9/12/2018 10:00:00 AM - 9/12/2018 10:10:00 AM

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
10:00:00	672.5	595.8
10:01:00	668.2	596.7
10:02:00	678.8	601.4
10:03:00	681.6	603.9
10:04:00	674.3	597.4
10:05:00	673.1	596.4
10:06:00	668.7	592.5
10:07:00	680.5	602.9
10:08:00	665.8	589.9
10:09:00	676.9	599.7
10:10:00	663.3	587.7
Average :	673.1	596.8

* Invalid Status

RATA Run # 5
Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 11:07:53

East Chicago, IN

9/12/2018 10:45:00 AM - 9/12/2018 10:54:00 AM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
10:45:00	673.8	597.0
10:46:00	668.1	592.6
10:47:00	667.3	591.2
10:48:00	672.0	596.1
10:49:00	673.1	597.0
10:50:00	674.4	602.9
10:51:00	674.9	598.6
10:52:00	679.6	602.8
10:53:00	673.6	602.2
10:54:00	671.2	595.4
Average :	672.8	597.6

* Invalid Status

RATA Run # 6
Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 11:48:32

East Chicago, IN

9/12/2018 11:25:00 AM - 9/12/2018 11:33:00 AM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
11:25:00	677.3	606.2
11:26:00	670.9	595.8
11:27:00	671.8	596.6
11:28:00	676.8	601.0
11:29:00	669.9	594.9
11:30:00	670.9	595.8
11:31:00	680.7	604.5
11:32:00	667.5	592.7
11:33:00	676.4	600.6
Average :	673.6	598.7

* Invalid Status

RATA Run # 7

Verified By:

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 12:32:52

East Chicago, IN

9/12/2018 12:05:00 PM - 9/12/2018 12:13:00 PM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
12:05:00	675.5	601.2
12:06:00	674.0	599.9
12:07:00	671.5	597.6
12:08:00	664.9	591.8
12:09:00	675.5	601.2
12:10:00	670.8	597.0
12:11:00	674.1	599.9
12:12:00	682.0	607.0
12:13:00	670.4	596.7
Average :	673.2	599.1

* Invalid Status

RATA Run # 8

Verified By: ____________

Primary Energy Coke

RATA Data Report

Created on : Sep 12, 2018 13:07:25

East Chicago, IN

9/12/2018 12:45:00 PM - 9/12/2018 12:53:00 PM

STACK 201

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
12:45:00	673.2	599.8
12:46:00	675.3	601.7
12:47:00	669.6	596.6
12:48:00	670.5	597.4
12:49:00	676.2	602.5
12:50:00	674.2	600.7
12:51:00	668.5	600.3
12:52:00	668.6	600.4
12:53:00	674.9	606.1
Average :	672.3	600.6

* Invalid Status

RATA Run # 9

Verified By:

RATA Data Report

9/12/2018 1:25:00 PM - 9/12/2018 1:33:00 PM

Time	VOL FLOW, KSCFM	VOL FLOW DRY, KSCFM
13:25:00	656.3	584.8
13:26:00	651.6	580.6
13:27:00	665.1	592.6
13:28:00	670.4	597.3
13:29:00	658.3	586.5
13:30:00	663.7	591.4
13:31:00	664.6	592.2
13:32:00	664.2	591.8
13:33:00	665.9	593.3
Average :	662.2	590.1

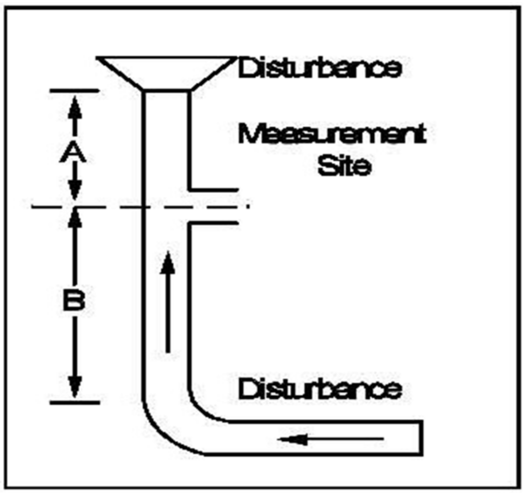
* Invalid Status

RATA Run # 10
Verified By:

Sample Location Information for Volumetric Flow Determination - Round Ducts

Project #:	305091	Duct Diameter:	18.00 feet
Company:	Primary Energy	# of Ports Used:	4
Plant:	Cokenergy Facility	# of Points/Diameter:	8
Unit ID:	HRCC	Total # of points	16
Sample Location:	Stack 201	Sample Plane:	Horizontal
		Port Type:	Nipple
Distance A:	73.80 Feet, 4.10 Duct diameters	Port Length:	7.0 inches
Distance B:	201.00 Feet, 11.17 Duct diameters	Port Inside Diameter:	6.0 inches

Meets Method 1 criteria



Traverse Point Locations

Point	% of diameter	Inches from wall	Inches from port edge
1	3.2	6.9	13.9
2	10.5	22.7	29.7
3	19.4	41.9	48.9
4	32.3	69.8	76.8

Pre-cyclonic flow check conducted? No Reason: Conducted Previously

Part 60 RATA
Initial Stratification Check and Test Point Selection

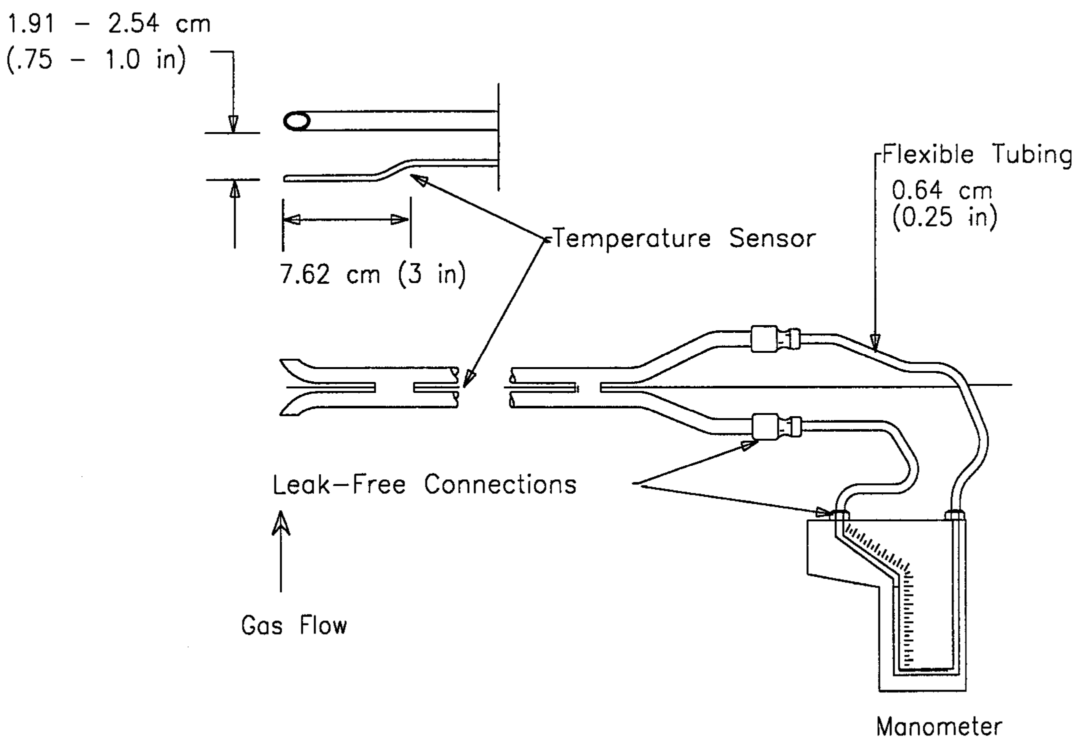
Project Number:	305091	Test Date:	9/12/2018	
Customer:	Primary Energy	Duct Shape:	Round	
Unit Identification:	HRCC	Diameter:	18	feet
Sample Location:	Stack 201			
		Port Length:	6.75	inches

Is the sample location downstream of a wet scrubber, or downstream of a point where two ducts converge? N

Sampling line/strategy selected: Short Line (0.4, 1.2, 2.0 meters)

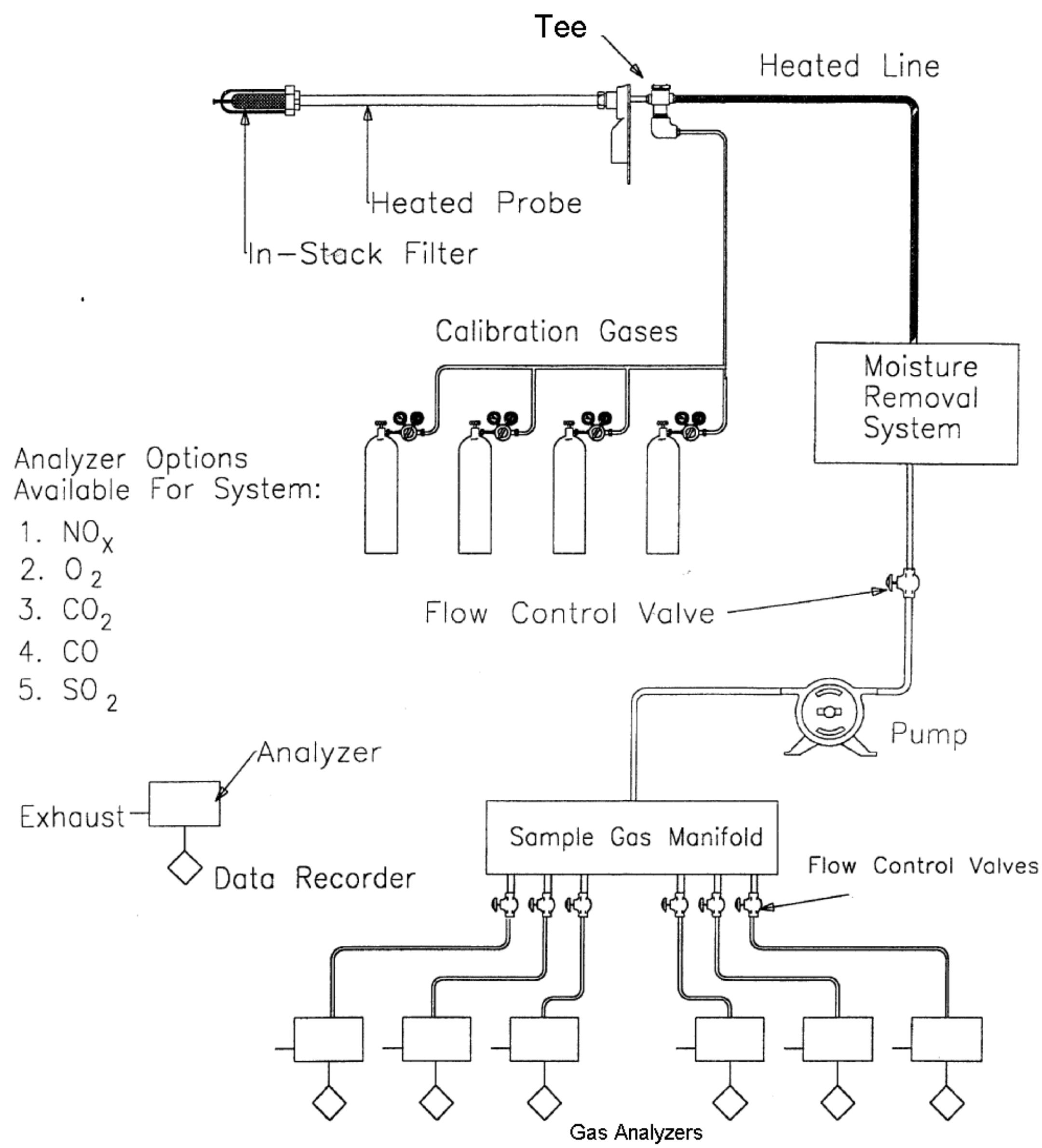
Determination of Stack Gas Velocity and Volumetric Flow Rate

USEPA Promulgated Test Method 2



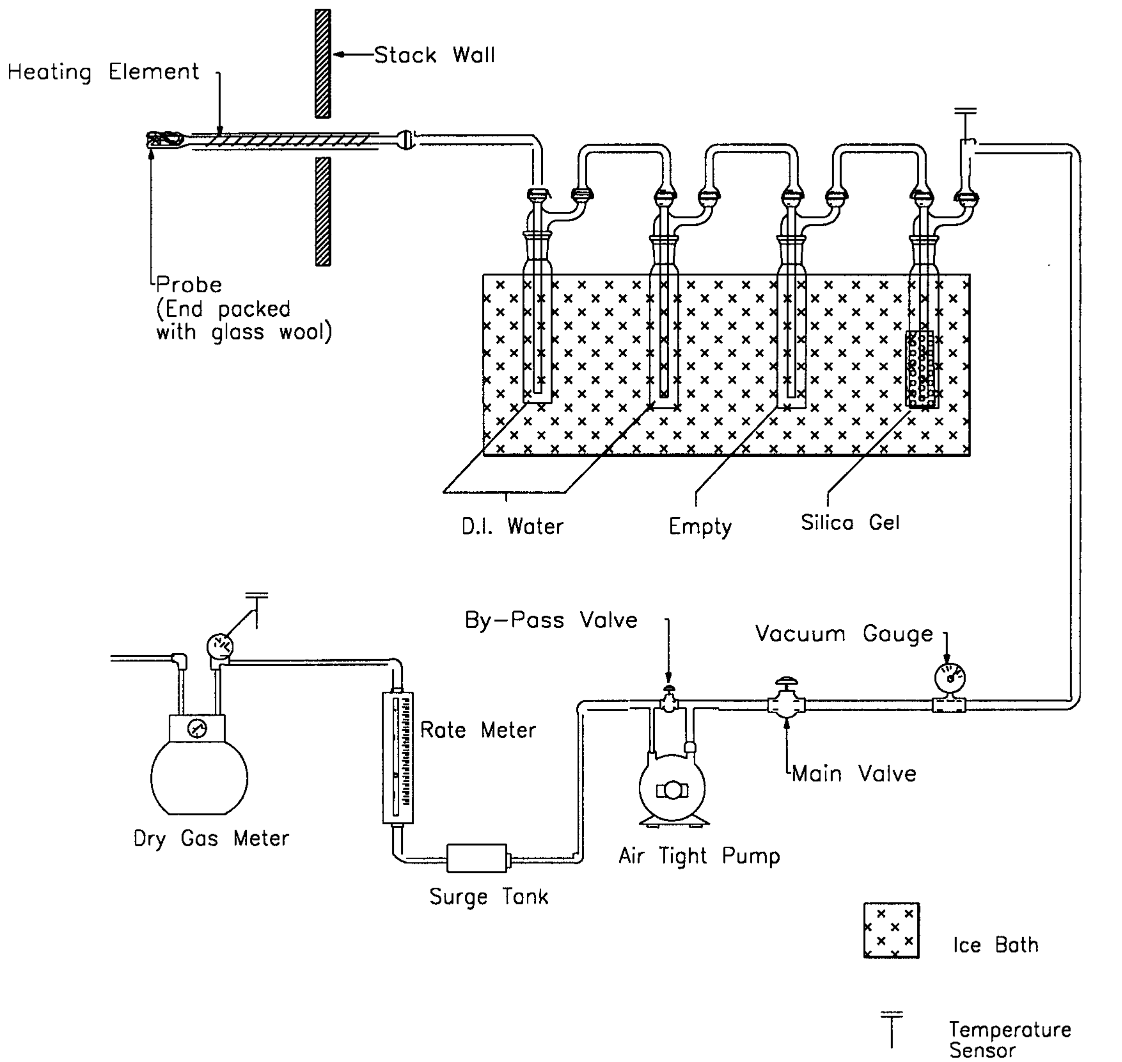
Determination of Multiple Gaseous Pollutants Using an Extractive Sampling Train

USEPA Promulgated Methods 3A, 6C and 10



Determination of Moisture Content in Stack Gases

USEPA Promulgated Method 4



Example Calculations - Method 2 Volumetric Flow

Company:	Primary Energy	Project Number:	305091
Unit ID:	HRCC	Test Date:	September 12, 2018
Plant:	Cokenergy Facility	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Note: In order to duplicate these examples, results must not be rounded.

Effluent Gas Pressure

$$P_s = P_{bar} + (P_g/13.6)$$

Where:

P_s = Flue gas pressure ("Hg)
P_{bar} = Ambient barometric pressure at sample elevation ("Hg)
P_g = Flue gas gauge pressure ("H_2O)

P_{bar} = 29.26 "Hg P_g = -1 "H_2O

P_s = 29.19 "Hg

Average Stack Temperature

$$T_s = \frac{\sum_{i=1}^{n} T_{si}}{n}$$

Where:

T_s = Average effluent gas temperature (^oF)
T_{si} = Effluent gas temperature at point i (^oF)
n = Total number of traverse points

T_s = 287 °F

Actual Meter Volume

$$V_m = Vf - Vi$$

Where:

V_i = Initial meter sample volume (cubic feet)
V_f = Final meter sample volume (cubic feet)
V_m = Sample volume collected at actual conditions (ft^3, dry basis)

Vf = 301.456 cf   Vi = 279.000 cf

V_m = 22.456 cubic feet

TRC

Example Calculations - Method 2 Volumetric Flow

Company:	Primary Energy	Project Number:	305091
Unit ID:	HRCC	Test Date:	September 12, 2018
Plant:	Cokenergy Facility	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Note: In order to duplicate these examples, results must not be rounded.

Standard Meter Volume

$$V_{m(std)} = T_{std}/29.92 \times Y \times V_m \times (P_{bar} + \Delta H /13.6)/(T_m + 460)$$

Where:

$V_{m(std)}$ = Sample volume collected corrected to 29.92"Hg and T_{std} (scf, dry basis)
Y = Dry test meter calibration coefficient (dimensionless)
V_m = Sample volume collected at actual conditions (ft^3, dry basis)
T_m = Average dry test meter temperature (°F)
ΔH= Pressure drop across calibrated orifice ("H2O)
T_{std} = Standard Temperature (°R)

V_m = 22.456 cf　　P_{bar} = 29.26 "Hg

ΔH= 2.00 "H_2O　　T_m = 70.9 °F

Y = 0.997 dimensionless　　T_{std} = 528 °R

$V_{m(std)}$ = 21.885 dscf

Volume of Water Vapor Condensed

$$V_{w(std)} = [(0.04707 \times \text{net ml } H_2O) + (0.04715 \times \text{net grams } H_2O)] \times (T_{std} / 528)$$

Where:

$V_{w(std)}$ = Sample volume collected corrected to 29.92 in. Hg and 528(°R) (ft^3, dry basis)

net grams H_2O = Final moisture weight - initial moisture weight

net grams H_2O = **3182.6** - **3108.3**

$V_{w(std)}$ = 3.503 cf

Moisture Content From Method 4 or Alt-008

$$B_{ws} = \frac{V_{w(std)}}{V_{w(std)} + V_{m(std)}} =$$

Where:

B_{ws} = Fractional moisture content (dimensionless)

$V_{w(std)}$ = 3.503 cf　　$V_{m(std)}$ = 21.885 dscf

B_{ws} = 0.138

Example Calculations - Method 2 Volumetric Flow

Company:	Primary Energy	Project Number:	305091
Unit ID:	HRCC	Test Date:	September 12, 2018
Plant:	Cokenergy Facility	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Note: In order to duplicate these examples, results must not be rounded.

Dry Molecular Weight

$$M_d = 0.44 \times (\%CO_2) + 0.32 \times (\%O_2) + 0.28 \times (\%N_2)$$

Where:

M_d = Effluent gas molecular weight (lb/lb-mole, dry basis)
$\%CO_2$ = Effluent gas Carbon Dioxide Content (% volume, dry basis)
$\%O_2$ = Effluent gas Oxygen Content (% volume, dry basis)
$\%N_2$ = Effluent Balance Gas Content (% volume, dry basis)
0.32 = Molecular weight of O2 divided by 100
0.44 = Molecular weight of CO2 divided by 100
0.28 = Molecular weight of Nitrogen divided by 100

$\%CO_2$ = 5.2 $\%O_2$ = 12.6 $\%N_2$ = 82.2

M_d = 29.34 lb/lb-mole From Method 3A, Instrumental

Wet Molecular Weight

$$M_s = Md \times (1-Bws) + (18.0 \times Bws)$$

Where:

M_s = Effluent gas molecular weight (lb/lb-mole, wet basis)
B_{ws} = Effluent gas fractional moisture content (dimensionless)

M_d = 29.34 lb/lb-mole B_{ws} = 0.138 From Method 4

M_s = 27.77 lb/lb-mole

Average Square Root of Velocity Head - applicable to Method 2 only

$$avg\sqrt{\Delta P} = \frac{\sum_{i=1}^{n} \sqrt{\Delta Pi}}{n}$$

Where:

$\sqrt{\Delta Pi}$ = square root of ΔP at traverse point i
$avg\sqrt{\Delta P}$ = Average of the square roots of ΔP's at all traverse points

$avg\sqrt{\Delta P}$ = 1.0275

Example Calculations - Method 2 Volumetric Flow

Company:	Primary Energy	Project Number:	305091
Unit ID:	HRCC	Test Date:	September 12, 2018
Plant:	Cokenergy Facility	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Note: In order to duplicate these examples, results must not be rounded.

Average Duct Velocity - applicable to Method 2 only

$$V_s = 85.49 \ \text{x} \ Cp \ \text{x} \ \text{avg}\sqrt{\Delta P} \ \text{x} \ ((Ts + 460)/ (Ps \text{ x } Ms))^{1/2}$$

Where:

V_s = Average velocity of effluent gas (ft/sec)
C_p = Pitot calibration coefficient (dimensionless)
avg$\sqrt{\Delta P}$ = Average of the square roots of ΔP's at all traverse points
T_s = Average effluent gas temperature (^oF)

C_p = 0.840
P_s = 29.19 "Hg
avg$\sqrt{\Delta P}$ = 1.0275
T_s = 287 °F
M_s = 27.77 lb/lb-mole

V_s = 70.81 ft/sec

Volumetric Flow Rate (Actual Basis)

Applicable when Method 2 is used alone:

$$Qacfm = V_s \ \text{x} \ A \ \text{x} \ 60 \text{ sec/min}$$

Where:

' Q = Effluent gas volumetric flow rate at actual conditions (acfm)
A = Cross-sectional area of the stack/duct at the test location (ft^2)

V_s = 70.81 ft/sec
A = 254.469 ft^2

Q = 1,081,203 acfm

Example Calculations - Method 2 Volumetric Flow

Company:	Primary Energy	Project Number:	305091
Unit ID:	HRCC	Test Date:	September 12, 2018
Plant:	Cokenergy Facility	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Note: In order to duplicate these examples, results must not be rounded.

Volumetric Flow Rate (Standard Wet Basis)

Standard cubic feet per minute (Wet):

Q_{std} = Q x (T_{std}/29.92) x (P_s/(T_s + 460))

Where:

Q_{std} = Effluent gas volumetric flow rate corrected to 29.92"Hg and 528°R (scfm)

Q = 1,081,203 scfm

P_s = 29.19 "Hg

Ts (avg) = 287 °F

T_{std} = 528 °R

Q_{std} = 745,862 scfm

Standard cubic feet per hour (Wet):

Q_{sw} = Q_{std} x 60 min/hr

Q_{sw} = 44,751,720 scfh

Volumetric Flow Rate (Standard Dry Basis)

Standard cubic feet per minute (Dry):

Q_{dscfm} = Q_{std} x (1-B_{ws})

B_{ws} = 0.138 dimensionless

Q_{dscfm} = 642,941 dscfm

Standard cubic feet per hour (Dry):

Q_{sd} = Q_{dscfm} x 60 min/hr

Q_{sd} = 38,576,474 dscfh

Example Calculations - Effluent Gas Concentration Determination

Project Number:	305091	Test Date:	September 12, 2018
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRCC	Run #:	1
Sample Location:	Stack 201		

$$C_{gas} = (C - C_0) \times \frac{C_{ma}}{C_m - C_0}$$

Where:

C_{gas} = Effluent gas concentration (ppm or %vol)

C = Average gas concentration indicated by analyzer (ppm or %vol)

C_0 = Average of pre- and post-test system bias checks using low range gas (ppm or % vol)

C_m = Average of pre- and post-test system bias checks using upscale gas (ppm or % vol)

C_{ma} = Actual concentration of upscale gas (ppm or % vol)

SO_2

C =	152.39 ppm	C_0 =	2.90 ppm
C_m =	196.95 ppm	C_{ma} =	201.8 ppm

C_{SO2} = 155.5 ppm

CO_2

C =	5.16 %vol	C_0 =	0.05 %vol
C_m =	8.77 %vol	C_{ma} =	8.798 %vol

C_{CO2} = 5.2 %vol

O_2

C =	12.58 %vol	C_0 =	0.05 %vol
C_m =	9.98 %vol	C_{ma} =	9.976 %vol

C_{O2} = 12.6 %vol

Note: Interim results are not rounded.

Example Calculations - Pollutant Emission Rate, Volumetric Flow Rate-Based

Project Number:	305091	Test Date:	September 12, 2018
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRCC	Run #:	1

ER = Cgas x C_f x Flow x 60

Where:

ER = Pollutant emission rate (lb/hr)

C_{gas} = Pollutant concentration (ppm, wet or dry basis, but the same as flow)

MW = Pollutant molecular weight (gr/gr-mole)

Flow = Volumetric flow rate (cubic feet per minute wet or dry, but the same as C_{gas})

C_f = Conversion factor (ppm to lb/scf)

1.660E-07 = Conversion constant for SO2. From Table 19-1 of Method 19, 40CFR, Appendix A

For SO2 ER = C_{gas} x 1.660E-07 x Flow x 60

C_{gas} = 155.5 ppmvd

Flow = 642,941 DSCFM

ER_{SO2} = 995.53 lb/hr

Note: Interim results are not rounded.

Example Calculations - Relative Accuracy (RA) and Bias

Project Number:	305091	Test Date:	September 12, 2018
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRCC		

Mean Difference:

$$\overline{d} = \frac{1}{n}\sum_{i=1}^{n} di$$

Where:

di = Difference between RM and CEMS values for run "i"

n = Number of runs used to calculate RA

Standard Deviation:

$$Sd = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left[\sum_{i=1}^{n} d_i\right]^2}{n}}{n-1}\right]^{1/2}$$

Confidence Coefficient:

$$CC = t_{0.025}\,\frac{Sd}{\sqrt{n}}$$

Where:

$t_{0.025}$ = T values as presented in 40CFR60 or 40CFR75. For 40CFR60, use $t_{0.975,}$ which are the same T values.

Relative Accuracy based on RM:

$$RA = \frac{\left|\overline{d}\right| + \left|CC\right|}{RM\,avg}\times 100$$

Where:

RM avg = Average RM value for runs used to calculate RA

Relative Accuracy based on Applicable Standard - for Part 60 Applications Only:

$$RA = \frac{\left|\overline{d}\right| + \left|CC\right|}{App\ \ Std}\times 100$$

Example Calculations - Moisture (Method 4)

Company:	Primary Energy	Project Number:	305091
Plant:	Cokenergy Facility	Test Date:	September 12, 2018
Unit ID:	HRCC	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Effluent Gas Pressure

$P_s = P_{bar} + (P_g / 13.6)$

Where:

P_s = Flue gas pressure ("Hg)
P_{bar} = Ambient barometric pressure at sample elevation ("Hg)
P_g = Flue gas gauge pressure ("H_2O)

P_{bar} = 29.26 "Hg P_g = -1.00 "H_2O

P_s = 29.19 "Hg

Actual Meter Volume

V_m = Vf - Vi

Where:

V_i = Initial meter sample volume (Cubic Feet or Liters)
V_f = Final meter sample volume (Cubic Feet or Liters)
V_m = Sample volume collected at actual conditions (dcf)

V_f = 301.456 cf V_i = 279.000 cf

V_m = 22.456 dcf

Sample Volume at Standard Conditions

$V_{m(std)} = (T_{std} / 29.92) \times Y \times V_m \times (P_{bar} + P_m / 13.6)/(T_m + 460)$

Where:

$V_{m(std)}$ = Sample volume collected corrected to 29.92 "Hg and 528 °R (dscf)
Y = Dry test meter calibration coefficient (dimensionless)
T_m = Average dry test meter temperature (^oF)
P_m = Average dry test meter pressure ("H_2O)
T_{std} = Standard temperature 528 °R

V_m = 22.456 dcf P_{bar} = 29.26 "Hg

P_m = 2.00 "H_2O T_m = 70.9 °F

Y = 0.997 T_{std} = 528.0 °R

$V_{m(std)}$ = 21.884 dscf

Example Calculations - Moisture (Method 4)

Company:	Primary Energy	Project Number:	305091
Plant:	Cokenergy Facility	Test Date:	September 12, 2018
Unit ID:	HRCC	Run #:	1
Sample Location:	Stack 201	Operating Level:	High

Volume of Water Vapor Condensed at Standard Conditions

$$V_{wc(std)} = 0.04715 \times (T_{std} / 528) \times M_{H2O}$$

Where:

$V_{wc(std)}$ = Volume of water vapor collected corrected to 29.92 "Hg and 528 °R (scf)
M_{H2O} = Net weight gain of impingers (grams)

M_{H2O} = 74.3 grams

$V_{wc(std)}$ = 3.503 scf

Moisture Content

$$B_{ws} = \frac{V_{wc(std)}}{V_{wc(std)} + V_{m(std)}}$$

Where:
B_{ws} = Fractional moisture content (dimensionless)

$V_{wc(std)}$ = 3.503 scf $V_{m(std)}$ = 21.884 dscf

B_{ws} = 0.138

Dry Molecular Weight

$$M_d = 0.44 \times (\%CO_2) + 0.32 \times (\%O_2) + 0.28 \times (\%N_2)$$

Where:

M_d = Effluent gas molecular weight (lb/lb-mole, dry basis)
$\%CO_2$ = Effluent gas Carbon Dioxide Content (% volume, dry basis)
$\%O_2$ = Effluent gas Oxygen Content (% volume, dry basis)
$\%N_2$ = Effluent gas Nitrogen Content (% volume, dry basis)
0.32 = Molecular weight of O_2, divided by 100
0.44 = Molecular weight of CO_2, divided by 100
0.28 = Molecular weight of N_2, divided by 100

$\%CO_2$ = 5.2 $\%O_2$ = 12.6 $\%N_2$ = 82.2

M_d = 29.34 lb/lb-mole

Wet Molecular Weight

$$M_s = M_d \times (1 - B_{ws}) + (18.0 \times B_{ws})$$

Where:

M_s = Effluent gas molecular weight (lb/lb-mole, wet basis)

M_d = 29.34 lb/lb-mole B_{ws} = 0.138

M_s = 27.77 lb/lb-mole

Instrumental Reference Method Field Data

Project Number:	305091	Start Date:	9/12/2018
Customer:	Primary Energy	End Date:	9/12/2018
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis
Load Level/Condition:	> 50% load	Fc Factor:	-
		Fd Factor:	-

Test Parameter				NO_X	SO_2	CO	CO_2	O_2	Volumetric Flow Rate	Moisture Fraction
Calibration Span, CS (Day 1)				-	452.6	-	17.86	22.01		
Calibration Span, CS (Day 2)				-	-	-	-	-		
Run No.	Start Date	First Minute	Last Minute	Run Average Raw Analyzer Responses					DSCFM	Bws
1	9/12/18	7:15	7:35	-	152.39	-	5.16	12.58	642941	-
2	9/12/18	8:00	8:20	-	148.93	-	5.11	12.70	652324	-
3	9/12/18	8:40	9:00	-	152.98	-	5.06	12.80	631745	-
4	9/12/18	9:20	9:40	-	143.08	-	4.96	12.99	623188	-
5	9/12/18	10:00	10:20	-	137.82	-	4.98	12.98	625367	-
6	9/12/18	10:45	11:05	-	130.89	-	4.94	13.06	633954	-
7	9/12/18	11:25	11:45	-	132.54	-	4.87	13.19	629515	-
8	9/12/18	12:05	12:25	-	133.23	-	4.76	13.38	636072	-
9	9/12/18	12:45	13:05	-	126.67	-	4.70	13.48	632043	-
10	9/12/18	13:25	13:45	-	121.24	-	4.73	13.47	619433	-

Primary Energy
Cokenergy Facility
HRCC Stack 201

Run 1

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 7:15	153.39	5.19	12.55
9/12/2018 7:16	153.63	5.16	12.59
9/12/2018 7:17	154.13	5.18	12.56
9/12/2018 7:18	153.79	5.18	12.56
9/12/2018 7:19	155.88	5.15	12.60
9/12/2018 7:20	155.38	5.17	12.57
9/12/2018 7:21	149.20	5.17	12.56
9/12/2018 7:22	150.62	5.15	12.60
9/12/2018 7:23	151.50	5.18	12.56
9/12/2018 7:24	150.63	5.16	12.58
9/12/2018 7:25	153.38	5.15	12.60
9/12/2018 7:26	151.51	5.16	12.58
9/12/2018 7:27	151.44	5.18	12.56
9/12/2018 7:28	151.78	5.15	12.60
9/12/2018 7:29	152.94	5.16	12.58
9/12/2018 7:30	151.12	5.18	12.56
9/12/2018 7:31	152.55	5.15	12.59
9/12/2018 7:32	152.24	5.16	12.60
9/12/2018 7:33	152.97	5.16	12.58
9/12/2018 7:34	151.03	5.16	12.59
9/12/2018 7:35	151.00	5.15	12.59
Average	**152.39**	**5.16**	**12.58**

Run 2

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 8:00	146.48	5.11	12.71
9/12/2018 8:01	148.38	5.13	12.68
9/12/2018 8:02	147.88	5.13	12.67
9/12/2018 8:03	149.52	5.10	12.70
9/12/2018 8:04	148.57	5.12	12.68
9/12/2018 8:05	148.60	5.10	12.70
9/12/2018 8:06	147.16	5.12	12.67
9/12/2018 8:07	149.76	5.10	12.70
9/12/2018 8:08	148.26	5.12	12.67
9/12/2018 8:09	148.04	5.09	12.72
9/12/2018 8:10	147.37	5.12	12.67
9/12/2018 8:11	147.99	5.08	12.72
9/12/2018 8:12	148.38	5.13	12.65
9/12/2018 8:13	149.53	5.09	12.71
9/12/2018 8:14	150.11	5.10	12.69
9/12/2018 8:15	148.65	5.10	12.71
9/12/2018 8:16	149.03	5.09	12.72
9/12/2018 8:17	150.20	5.10	12.71
9/12/2018 8:18	149.89	5.11	12.70
9/12/2018 8:19	150.94	5.10	12.71
9/12/2018 8:20	152.77	5.09	12.72
Average	**148.93**	**5.11**	**12.70**

Run 3

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 8:40	149.49	5.08	12.75
9/12/2018 8:41	151.45	5.06	12.79
9/12/2018 8:42	149.95	5.08	12.75
9/12/2018 8:43	151.99	5.05	12.79
9/12/2018 8:44	151.41	5.09	12.75
9/12/2018 8:45	152.70	5.06	12.79
9/12/2018 8:46	154.51	5.06	12.79
9/12/2018 8:47	153.76	5.08	12.77
9/12/2018 8:48	153.97	5.07	12.79
9/12/2018 8:49	156.88	5.06	12.80
9/12/2018 8:50	154.38	5.08	12.78
9/12/2018 8:51	153.46	5.04	12.83
9/12/2018 8:52	152.20	5.07	12.79
9/12/2018 8:53	151.19	5.06	12.81
9/12/2018 8:54	153.90	5.05	12.81
9/12/2018 8:55	152.99	5.06	12.79
9/12/2018 8:56	155.48	5.04	12.83
9/12/2018 8:57	153.33	5.06	12.79
9/12/2018 8:58	153.66	5.04	12.87
9/12/2018 8:59	153.58	5.03	12.87
9/12/2018 9:00	152.39	5.04	12.83
Average	**152.98**	**5.06**	**12.80**

Run 4

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 9:20	136.04	4.90	13.09
9/12/2018 9:21	135.92	4.91	13.08
9/12/2018 9:22	134.26	4.91	13.08
9/12/2018 9:23	137.31	4.91	13.09
9/12/2018 9:24	137.41	4.91	13.09
9/12/2018 9:25	138.78	4.94	13.03
9/12/2018 9:26	142.21	4.96	12.99
9/12/2018 9:27	144.28	4.98	12.98
9/12/2018 9:28	145.34	4.99	12.94
9/12/2018 9:29	146.28	4.97	12.97
9/12/2018 9:30	148.57	4.97	12.95
9/12/2018 9:31	146.49	4.97	12.96
9/12/2018 9:32	146.75	4.97	12.97
9/12/2018 9:33	146.00	4.98	12.95
9/12/2018 9:34	146.86	4.98	12.96
9/12/2018 9:35	146.71	4.99	12.94
9/12/2018 9:36	144.99	4.98	12.96
9/12/2018 9:37	145.17	5.00	12.93
9/12/2018 9:38	143.97	4.98	12.96
9/12/2018 9:39	146.38	4.98	12.95
9/12/2018 9:40	144.94	4.99	12.94
Average	**143.08**	**4.96**	**12.99**

Primary Energy
Cokenergy Facility
HRCC Stack 201

Run 5

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 10:00	136.10	5.00	12.94
9/12/2018 10:01	136.51	5.00	12.95
9/12/2018 10:02	137.08	4.99	12.96
9/12/2018 10:03	137.12	4.98	12.97
9/12/2018 10:04	136.65	5.00	12.95
9/12/2018 10:05	137.52	4.98	12.98
9/12/2018 10:06	139.17	4.98	12.97
9/12/2018 10:07	138.78	4.98	12.97
9/12/2018 10:08	139.75	4.98	12.98
9/12/2018 10:09	139.79	4.99	12.96
9/12/2018 10:10	139.86	4.97	12.99
9/12/2018 10:11	141.38	4.98	12.98
9/12/2018 10:12	140.09	4.98	12.99
9/12/2018 10:13	137.45	4.95	13.02
9/12/2018 10:14	136.04	4.98	12.99
9/12/2018 10:15	137.38	4.96	12.99
9/12/2018 10:16	136.46	4.96	13.00
9/12/2018 10:17	137.79	4.97	13.00
9/12/2018 10:18	138.05	4.97	12.98
9/12/2018 10:19	135.44	4.96	13.00
9/12/2018 10:20	135.88	4.95	13.02
Average	**137.82**	**4.98**	**12.98**

Run 6

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 10:45	130.06	4.94	13.06
9/12/2018 10:46	132.01	4.96	13.03
9/12/2018 10:47	129.32	4.96	13.03
9/12/2018 10:48	132.09	4.94	13.06
9/12/2018 10:49	129.68	4.95	13.04
9/12/2018 10:50	131.17	4.93	13.06
9/12/2018 10:51	131.86	4.94	13.05
9/12/2018 10:52	131.84	4.94	13.06
9/12/2018 10:54	131.26	4.95	13.03
9/12/2018 10:55	131.13	4.93	13.06
9/12/2018 10:56	132.26	4.94	13.06
9/12/2018 10:57	131.19	4.94	13.05
9/12/2018 10:58	131.11	4.92	13.07
9/12/2018 10:59	131.57	4.93	13.06
9/12/2018 11:00	130.95	4.94	13.06
9/12/2018 11:01	129.33	4.94	13.05
9/12/2018 11:02	130.34	4.93	13.07
9/12/2018 11:03	129.51	4.94	13.05
9/12/2018 11:04	131.29	4.92	13.09
9/12/2018 11:05	130.60	4.93	13.06
9/12/2018 11:06	130.07	4.93	13.08
Average	**130.89**	**4.94**	**13.06**

Run 7

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 11:25	127.25	4.89	13.14
9/12/2018 11:26	129.47	4.88	13.15
9/12/2018 11:27	129.91	4.89	13.14
9/12/2018 11:28	129.33	4.86	13.18
9/12/2018 11:29	132.13	4.88	13.16
9/12/2018 11:30	130.09	4.87	13.17
9/12/2018 11:31	130.45	4.86	13.20
9/12/2018 11:32	132.17	4.87	13.18
9/12/2018 11:33	131.10	4.87	13.18
9/12/2018 11:34	132.28	4.85	13.21
9/12/2018 11:35	132.25	4.88	13.17
9/12/2018 11:36	132.43	4.89	13.16
9/12/2018 11:37	133.48	4.86	13.20
9/12/2018 11:38	135.23	4.87	13.19
9/12/2018 11:39	133.28	4.86	13.20
9/12/2018 11:40	133.55	4.86	13.20
9/12/2018 11:41	134.86	4.84	13.23
9/12/2018 11:42	134.68	4.86	13.20
9/12/2018 11:43	133.68	4.85	13.20
9/12/2018 11:44	136.92	4.84	13.23
9/12/2018 11:45	138.75	4.83	13.24
Average	**132.54**	**4.87**	**13.19**

Run 8

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 12:05	133.54	4.78	13.35
9/12/2018 12:06	133.80	4.76	13.38
9/12/2018 12:07	133.48	4.78	13.35
9/12/2018 12:08	133.82	4.77	13.36
9/12/2018 12:09	134.38	4.76	13.37
9/12/2018 12:10	135.71	4.76	13.38
9/12/2018 12:11	133.09	4.78	13.35
9/12/2018 12:12	132.55	4.77	13.38
9/12/2018 12:13	133.04	4.76	13.38
9/12/2018 12:14	132.43	4.75	13.38
9/12/2018 12:15	133.76	4.74	13.40
9/12/2018 12:16	134.82	4.76	13.38
9/12/2018 12:17	134.59	4.76	13.39
9/12/2018 12:18	135.98	4.74	13.41
9/12/2018 12:19	133.50	4.75	13.39
9/12/2018 12:20	133.75	4.75	13.40
9/12/2018 12:21	131.78	4.75	13.40
9/12/2018 12:22	130.84	4.75	13.41
9/12/2018 12:23	130.18	4.74	13.42
9/12/2018 12:24	131.22	4.75	13.40
9/12/2018 12:25	131.63	4.75	13.40
Average	**133.23**	**4.76**	**13.38**

Primary Energy
Cokenergy Facility
HRCC Stack 201

Run 9

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 12:45	129.66	4.72	13.45
9/12/2018 12:46	129.84	4.72	13.44
9/12/2018 12:47	129.59	4.71	13.47
9/12/2018 12:48	128.25	4.72	13.46
9/12/2018 12:49	126.63	4.71	13.46
9/12/2018 12:50	128.26	4.70	13.48
9/12/2018 12:51	127.51	4.71	13.47
9/12/2018 12:52	125.83	4.71	13.47
9/12/2018 12:53	127.05	4.69	13.49
9/12/2018 12:54	126.97	4.70	13.48
9/12/2018 12:55	125.73	4.71	13.47
9/12/2018 12:56	126.08	4.70	13.49
9/12/2018 12:57	126.19	4.70	13.47
9/12/2018 12:58	126.13	4.70	13.48
9/12/2018 12:59	126.93	4.69	13.50
9/12/2018 13:00	126.00	4.69	13.50
9/12/2018 13:01	125.54	4.72	13.46
9/12/2018 13:02	125.58	4.69	13.50
9/12/2018 13:03	124.92	4.71	13.50
9/12/2018 13:04	123.62	4.71	13.48
9/12/2018 13:05	123.69	4.69	13.50
Average	**126.67**	**4.70**	**13.48**

Run 10

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 13:25	123.62	4.75	13.44
9/12/2018 13:26	119.69	4.74	13.44
9/12/2018 13:27	119.95	4.73	13.46
9/12/2018 13:28	119.46	4.75	13.44
9/12/2018 13:29	119.57	4.74	13.44
9/12/2018 13:30	119.65	4.74	13.46
9/12/2018 13:31	118.82	4.71	13.48
9/12/2018 13:32	118.84	4.74	13.45
9/12/2018 13:33	119.74	4.74	13.45
9/12/2018 13:34	146.79	4.72	13.47
9/12/2018 13:35	131.59	4.74	13.46
9/12/2018 13:36	121.58	4.72	13.48
9/12/2018 13:37	116.57	4.73	13.48
9/12/2018 13:38	119.07	4.72	13.48
9/12/2018 13:39	118.30	4.73	13.47
9/12/2018 13:40	119.07	4.71	13.50
9/12/2018 13:41	118.24	4.73	13.47
9/12/2018 13:42	119.04	4.71	13.49
9/12/2018 13:43	120.24	4.71	13.49
9/12/2018 13:44	118.65	4.71	13.50
9/12/2018 13:45	117.49	4.69	13.52
Average	**121.24**	**4.73**	**13.47**

Volumetric Flow Test Run Data Summary

Primary Energy
Cokenergy Facility
HRCC Stack 201

Operating Level:	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**Average**
Run No.:	1	2	3	4	5	6	7	8	9	10	
Start Date:	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	
End Date:	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	
Start Time:	7:15	8:00	8:40	9:20	10:00	10:45	11:25	12:05	12:45	13:25	
End Time:	7:25	8:08	8:49	9:28	10:10	10:54	11:33	12:13	12:53	13:33	

Test Parameters

P_{bar} - Barometric pressure, inches Hg	29.26	29.28	29.28	29.28	29.28	29.31	29.28	29.28	29.26	29.26	29.28
P_g - Stack Pressure, inches of H2O	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
P_s - Absolute stack pressure, inches Hg	29.19	29.21	29.21	29.21	29.21	29.24	29.21	29.21	29.19	29.19	29.20
T_s - Average stack temperature, °F	287	284	285	285	286	286	287	286	286	287	285.66
% CO_2:	5.2	5.1	5.1	5.0	5.0	4.9	4.9	4.8	4.7	4.7	4.94
% O_2:	12.6	12.7	12.8	13.0	13.0	13.1	13.2	13.4	13.5	13.5	13.08
% Nitrogen:	82.2	82.2	82.1	82.0	82.0	82.0	81.9	81.8	81.8	81.8	81.98
M_d - dry basis lb/lb mole	29.336	29.324	29.328	29.320	29.320	29.308	29.312	29.304	29.292	29.292	29.31
Stack Diameter, Feet	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	
A - Cross Sectional Area of Stack, Ft^2	254.47	254.47	254.47	254.47	254.47	254.47	254.47	254.47	254.47	254.47	

Method 2 Results

Average ΔP	1.058	1.099	1.022	0.988	1.001	1.018	1.016	1.021	1.016	0.987	1.02
Average Sqrt ΔP	1.027	1.047	1.010	0.993	1.000	1.008	1.007	1.010	1.007	0.992	1.01
Bws - Moisture content fraction	0.138	0.145	0.140	0.137	0.140	0.135	0.140	0.132	0.136	0.141	0.14
Ms - wet basis lb/lb mole	27.772	27.679	27.738	27.771	27.736	27.779	27.734	27.807	27.755	27.699	27.75
Average Velocity (ft/sec)	70.81	72.15	69.54	68.31	68.89	69.39	69.41	69.50	69.39	68.51	69.59
Actual cubic feet per minute (ACFM)	1,081,203	1,101,540	1,061,759	1,043,032	1,051,895	1,059,431	1,059,765	1,061,131	1,059,436	1,045,987	1,062,518
Standard cubic feet per minute (SCFM)	745,862	763,159	734,858	721,957	727,115	733,077	731,574	733,131	731,643	721,206	734,358
Standard cubic feet per hour (SCFH)	44,751,720	45,789,551	44,091,452	43,317,420	43,626,914	43,984,601	43,894,446	43,987,867	43,898,567	43,272,390	44,061,493
Dry Standard cubic feet per minute (DSCFM)	642,941	652,324	631,745	623,188	625,367	633,954	629,515	636,072	632,043	619,433	632,658
Dry Standard cubic feet per hour (DSCFH)	38,576,474	39,139,427	37,904,696	37,391,290	37,522,033	38,037,244	37,770,914	38,164,345	37,922,596	37,165,989	37,959,501

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	1
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	07:15
Pitot ID:	888A	**End Time:**	07:25
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.26
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.19
T_s - Average stack temperature, ^oF		287
Gas Molecular Weight Method:	% CO_2:	5.2
Method 3A, Instrumental	% O_2:	12.6
	% Nitrogen:	82.2
M_d - dry basis lb/lb mole		29.34
M_s - wet basis lb/lb mole		27.77
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.138

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	279.000
Final Meter Volume (cf)	301.456
Meter Temperature, deg F:	70.9
Meter Volume Vm(std) (cf):	21.885
Meter Volume Vw(std) (cf):	3.503
Delta H:	2.00
Train Initial Weight, g:	3108.3
Train Final Weight, g:	3182.6
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)	Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.10	1.0488	286	72.25	**C 01**	1.10	1.0488	287	72.30
A 02	1.10	1.0488	287	72.30	**C 02**	0.97	0.9849	286	67.85
A 03	1.10	1.0488	287	72.30	**C 03**	0.97	0.9849	286	67.85
A 04	1.00	1.0000	286	68.89	**C 04**	0.95	0.9747	286	67.15
B 01	1.00	1.0000	287	68.94	**D 01**	1.20	1.0954	287	75.52
B 02	0.98	0.9899	287	68.25	**D 02**	1.20	1.0954	287	75.52
B 03	1.00	1.0000	287	68.94	**D 03**	1.20	1.0954	287	75.52
B 04	0.95	0.9747	286	67.15	**D 04**	1.10	1.0488	287	72.30

Method 2 Results	
Average ΔP	1.0575
Average Sqrt ΔP	1.0275
Average Velocity (ft/sec)	70.81
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,081,203
Standard cubic feet per minute (SCFM)	745,862
Standard cubic feet per hour (SCFH)	44,751,720
Dry Standard cubic feet per minute (DSCFM)	642,941
Dry Standard cubic feet per hour (DSCFH)	38,576,474

Leak Checks:

Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	12.0	in. Hg	
Post-Test:	0.000	CFM @	12.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	2
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	08:00
Pitot ID:	888A	**End Time:**	08:08
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		284
Gas Molecular Weight Method:	% CO_2:	5.1
Method 3A, Instrumental	% O_2:	12.7
	% Nitrogen:	82.2
M_d - dry basis lb/lb mole		29.32
M_s - wet basis lb/lb mole		27.68
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.145

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	301.800
Final Meter Volume (cf)	324.310
Meter Temperature, deg F:	75.0
Meter Volume Vm(std):	21.784
Meter Volume Vw(std):	3.701
Delta H:	2.00
Train Initial Weight, g:	3336.7
Train Final Weight, g:	3415.2
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port	Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A	**01**	1.20	1.0954	284	75.47
A	**02**	1.20	1.0954	284	75.47
A	**03**	1.20	1.0954	284	75.47
A	**04**	1.20	1.0954	283	75.42
B	**01**	1.10	1.0488	285	72.30
B	**02**	1.10	1.0488	285	72.30
B	**03**	1.10	1.0488	284	72.25
B	**04**	0.95	0.9747	284	67.15

Port	Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C	**01**	1.00	1.0000	284	68.89
C	**02**	1.20	1.0954	284	75.47
C	**03**	1.00	1.0000	283	68.84
C	**04**	0.84	0.9165	283	63.10
D	**01**	1.20	1.0954	284	75.47
D	**02**	1.10	1.0488	284	72.25
D	**03**	1.10	1.0488	284	72.25
D	**04**	1.10	1.0488	284	72.25

Method 2 Results	
Average ΔP	1.0994
Average Sqrt ΔP	1.0473
Average Velocity (ft/sec)	72.15
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,101,540
Standard cubic feet per minute (SCFM)	763,159
Standard cubic feet per hour (SCFH)	45,789,551
Dry Standard cubic feet per minute (DSCFM)	652,324
Dry Standard cubic feet per hour (DSCFH)	39,139,427

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	10.0	in. Hg	
Post-Test:	0.000	CFM @	10.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

TRC

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	3
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	08:40
Pitot ID:	888A	**End Time:**	08:49
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		285
Gas Molecular Weight Method:	% CO_2:	5.1
Method 3A, Instrumental	% O_2:	12.8
	% Nitrogen:	82.1
M_d - dry basis lb/lb mole		29.33
M_s - wet basis lb/lb mole		27.74
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.140

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	324.500
Final Meter Volume (cf)	347.041
Meter Temperature, deg F:	80.1
Meter Volume Vm(std):	21.608
Meter Volume Vw(std):	3.527
Delta H:	2.00
Train Initial Weight, g:	3181.5
Train Final Weight, g:	3256.3
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.00	1.0000	285	68.86
A 02	1.10	1.0488	285	72.23
A 03	1.10	1.0488	285	72.23
A 04	0.95	0.9747	285	67.12
B 01	0.98	0.9899	285	68.17
B 02	0.97	0.9849	285	67.82
B 03	1.00	1.0000	285	68.86
B 04	0.90	0.9487	285	65.33

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C 01	1.10	1.0488	285	72.23
C 02	1.00	1.0000	285	68.86
C 03	1.00	1.0000	284	68.82
C 04	0.88	0.9381	284	64.56
D 01	1.10	1.0488	285	72.23
D 02	1.10	1.0488	284	72.18
D 03	1.20	1.0954	284	75.39
D 04	0.97	0.9849	284	67.78

Method 2 Results	
Average ΔP	1.0219
Average Sqrt ΔP	1.0100
Average Velocity (ft/sec)	69.54
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,061,759
Standard cubic feet per minute (SCFM)	734,858
Standard cubic feet per hour (SCFH)	44,091,452
Dry Standard cubic feet per minute (DSCFM)	631,745
Dry Standard cubic feet per hour (DSCFH)	37,904,696

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	12.0	in. Hg	
Post-Test:	0.000	CFM @	12.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	4
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	09:20
Pitot ID:	888A	**End Time:**	09:28
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		285
Gas Molecular Weight Method:	% CO_2:	5.0
Method 3A, Instrumental	% O_2:	13.0
	% Nitrogen:	82.0
M_d - dry basis lb/lb mole		29.32
M_s - wet basis lb/lb mole		27.77
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.137

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	347.300
Final Meter Volume (cf)	370.431
Meter Temperature, deg F:	81.8
Meter Volume Vm(std):	22.104
Meter Volume Vw(std):	3.503
Delta H:	2.00
Train Initial Weight, g:	3395.4
Train Final Weight, g:	3469.7
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.00	1.0000	285	68.82
A 02	1.00	1.0000	284	68.78
A 03	1.10	1.0488	284	72.13
A 04	0.97	0.9849	284	67.74
B 01	0.94	0.9695	285	66.73
B 02	1.00	1.0000	285	68.82
B 03	1.00	1.0000	284	68.78
B 04	0.84	0.9165	284	63.04

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C 01	1.00	1.0000	285	68.82
C 02	0.98	0.9899	285	68.13
C 03	0.93	0.9644	285	66.37
C 04	0.84	0.9165	285	63.08
D 01	1.10	1.0488	284	72.13
D 02	1.10	1.0488	285	72.18
D 03	1.10	1.0488	285	72.18
D 04	0.90	0.9487	285	65.29

Method 2 Results	
Average ΔP	0.9875
Average Sqrt ΔP	0.9929
Average Velocity (ft/sec)	68.31
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,043,032
Standard cubic feet per minute (SCFM)	721,957
Standard cubic feet per hour (SCFH)	43,317,420
Dry Standard cubic feet per minute (DSCFM)	623,188
Dry Standard cubic feet per hour (DSCFH)	37,391,290

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	12.0	in. Hg	
Post-Test:	0.000	CFM @	12.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	5
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	10:00
Pitot ID:	888A	**End Time:**	10:10
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		286
Gas Molecular Weight Method:	% CO_2:	5.0
Method 3A, Instrumental	% O_2:	13.0
	% Nitrogen:	82.0
M_d - dry basis lb/lb mole		29.32
M_s - wet basis lb/lb mole		27.74
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.140

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	370.700
Final Meter Volume (cf)	393.341
Meter Temperature, deg F:	81.5
Meter Volume Vm(std):	21.648
Meter Volume Vw(std):	3.522
Delta H:	2.00
Train Initial Weight, g:	3136.5
Train Final Weight, g:	3211.2
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.10	1.0488	286	72.28
A 02	1.10	1.0488	286	72.28
A 03	1.10	1.0488	286	72.28
A 04	0.95	0.9747	286	67.17
B 01	1.00	1.0000	286	68.91
B 02	1.00	1.0000	286	68.91
B 03	1.00	1.0000	285	68.87
B 04	0.85	0.9220	285	63.49

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C 01	1.00	1.0000	285	68.87
C 02	1.00	1.0000	285	68.87
C 03	1.00	1.0000	285	68.87
C 04	0.90	0.9487	285	65.33
D 01	1.00	1.0000	286	68.91
D 02	1.10	1.0488	286	72.28
D 03	1.00	1.0000	286	68.91
D 04	0.92	0.9592	286	66.10

Method 2 Results	
Average ΔP	1.0013
Average Sqrt ΔP	1.0000
Average Velocity (ft/sec)	68.89
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,051,895
Standard cubic feet per minute (SCFM)	727,115
Standard cubic feet per hour (SCFH)	43,626,914
Dry Standard cubic feet per minute (DSCFM)	625,367
Dry Standard cubic feet per hour (DSCFH)	37,522,033

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	13.0	in. Hg	
Post-Test:	0.000	CFM @	13.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	6
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	10:45
Pitot ID:	888A	**End Time:**	10:54
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.31
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.24
T_s - Average stack temperature, ^oF		286
Gas Molecular Weight Method:	% CO_2:	4.9
Method 3A, Instrumental	% O_2:	13.1
	% Nitrogen:	82.0
M_d - dry basis lb/lb mole		29.31
M_s - wet basis lb/lb mole		27.78
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.135

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	393.500
Final Meter Volume (cf)	416.705
Meter Temperature, deg F:	80.4
Meter Volume Vm(std):	22.255
Meter Volume Vw(std):	3.480
Delta H:	2.00
Train Initial Weight, g:	3384.5
Train Final Weight, g:	3458.3
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)	Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.00	1.0000	286	68.82	**C 01**	0.95	0.9747	286	67.08
A 02	1.00	1.0000	286	68.82	**C 02**	1.00	1.0000	286	68.82
A 03	1.10	1.0488	286	72.18	**C 03**	1.10	1.0488	286	72.18
A 04	1.00	1.0000	286	68.82	**C 04**	0.89	0.9434	286	64.93
B 01	0.95	0.9747	285	67.04	**D 01**	1.10	1.0488	285	72.14
B 02	0.98	0.9899	285	68.09	**D 02**	1.10	1.0488	285	72.14
B 03	1.10	1.0488	286	72.18	**D 03**	1.10	1.0488	285	72.14
B 04	0.95	0.9747	286	67.08	**D 04**	0.97	0.9849	285	67.74

Method 2 Results	
Average ΔP	1.0181
Average Sqrt ΔP	1.0084
Average Velocity (ft/sec)	69.39
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,059,431
Standard cubic feet per minute (SCFM)	733,077
Standard cubic feet per hour (SCFH)	43,984,601
Dry Standard cubic feet per minute (DSCFM)	633,954
Dry Standard cubic feet per hour (DSCFH)	38,037,244

Leak Checks:

Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	10.0	in. Hg	
Post-Test:	0.000	CFM @	10.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

TRC

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	7
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	11:25
Pitot ID:	888A	**End Time:**	11:33
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		287
Gas Molecular Weight Method:	% CO_2:	4.9
Method 3A, Instrumental	% O_2:	13.2
	% Nitrogen:	81.9
M_d - dry basis lb/lb mole		29.31
M_s - wet basis lb/lb mole		27.73
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.140

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	416.848
Final Meter Volume (cf)	439.741
Meter Temperature, deg F:	79.8
Meter Volume Vm(std):	21.958
Meter Volume Vw(std):	3.560
Delta H:	2.00
Train Initial Weight, g:	3080.8
Train Final Weight, g:	3156.3
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port	Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A	**01**	1.00	1.0000	287	68.96
A	**02**	1.00	1.0000	287	68.96
A	**03**	1.10	1.0488	287	72.33
A	**04**	0.98	0.9899	287	68.27
B	**01**	1.00	1.0000	287	68.96
B	**02**	1.00	1.0000	287	68.96
B	**03**	1.00	1.0000	287	68.96
B	**04**	0.90	0.9487	287	65.42

Port	Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C	**01**	1.00	1.0000	287	68.96
C	**02**	0.98	0.9899	287	68.27
C	**03**	0.98	0.9899	286	68.22
C	**04**	0.83	0.9110	286	62.79
D	**01**	1.10	1.0488	286	72.28
D	**02**	1.20	1.0954	286	75.49
D	**03**	1.20	1.0954	286	75.49
D	**04**	0.98	0.9899	286	68.22

Method 2 Results	
Average ΔP	1.0156
Average Sqrt ΔP	1.0068
Average Velocity (ft/sec)	69.41
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,059,765
Standard cubic feet per minute (SCFM)	731,574
Standard cubic feet per hour (SCFH)	43,894,446
Dry Standard cubic feet per minute (DSCFM)	629,515
Dry Standard cubic feet per hour (DSCFH)	37,770,914

Leak Checks:

Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	10.0	in. Hg	
Post-Test:	0.000	CFM @	10.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

TRC

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	8
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	12:05
Pitot ID:	888A	**End Time:**	12:13
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.28
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.21
T_s - Average stack temperature, ^oF		286
Gas Molecular Weight Method:	% CO_2:	4.8
Method 3A, Instrumental	% O_2:	13.4
	% Nitrogen:	81.8
M_d - dry basis lb/lb mole		29.30
M_s - wet basis lb/lb mole		27.81
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.132

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	439.810
Final Meter Volume (cf)	462.450
Meter Temperature, deg F:	82.7
Meter Volume Vm(std):	21.599
Meter Volume Vw(std):	3.296
Delta H:	2.00
Train Initial Weight, g:	3377.2
Train Final Weight, g:	3447.1
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)	Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.10	1.0488	286	72.18	**C 01**	1.10	1.0488	286	72.18
A 02	1.10	1.0488	286	72.18	**C 02**	1.00	1.0000	286	68.82
A 03	1.10	1.0488	286	72.18	**C 03**	1.00	1.0000	286	68.82
A 04	0.95	0.9747	286	67.08	**C 04**	0.93	0.9644	286	66.37
B 01	0.97	0.9849	286	67.78	**D 01**	1.10	1.0488	286	72.18
B 02	0.98	0.9899	286	68.13	**D 02**	1.10	1.0488	286	72.18
B 03	0.97	0.9849	286	67.78	**D 03**	1.10	1.0488	286	72.18
B 04	0.84	0.9165	286	63.08	**D 04**	1.00	1.0000	286	68.82

Method 2 Results	
Average ΔP	1.0213
Average Sqrt ΔP	1.0098
Average Velocity (ft/sec)	69.50
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,061,131
Standard cubic feet per minute (SCFM)	733,131
Standard cubic feet per hour (SCFH)	43,987,867
Dry Standard cubic feet per minute (DSCFM)	636,072
Dry Standard cubic feet per hour (DSCFH)	38,164,345

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	10.0	in. Hg	
Post-Test:	0.000	CFM @	10.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

TRC

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	9
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	12:45
Pitot ID:	888A	**End Time:**	12:53
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters		
P_{bar} - Barometric pressure, inches Hg		29.26
P_g - Stack Pressure, inches of H_2O		-1.00
P_s - Absolute stack pressure, inches Hg		29.19
T_s - Average stack temperature, ^oF		286
Gas Molecular Weight Method:	% CO_2:	4.7
Method 3A, Instrumental	% O_2:	13.5
	% Nitrogen:	81.8
M_d - dry basis lb/lb mole		29.29
M_s - wet basis lb/lb mole		27.75
Stack Diameter, Feet		18.00
A - Cross Sectional Area of Stack, Ft^2		254.47
B_{ws} - Moisture content fraction		0.136

Moisture Determination	
Method Used:	4
Meter Calibration:	0.997
Initial Meter Volume (cf)	462.500
Final Meter Volume (cf)	485.268
Meter Temperature, deg F:	85.3
Meter Volume Vm(std):	21.603
Meter Volume Vw(std):	3.404
Delta H:	2.00
Train Initial Weight, g:	3156.3
Train Final Weight, g:	3228.5
Condensate Initial Vol, mL:	0.0
Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.10	1.0488	286	72.28
A 02	1.10	1.0488	286	72.28
A 03	1.10	1.0488	286	72.28
A 04	0.97	0.9849	285	67.83
B 01	1.00	1.0000	285	68.87
B 02	1.00	1.0000	285	68.87
B 03	0.97	0.9849	286	67.87
B 04	0.88	0.9381	286	64.65

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
C 01	0.97	0.9849	286	67.87
C 02	0.97	0.9849	286	67.87
C 03	1.00	1.0000	286	68.91
C 04	0.92	0.9592	286	66.10
D 01	1.00	1.0000	286	68.91
D 02	1.10	1.0488	286	72.28
D 03	1.20	1.0954	286	75.49
D 04	0.97	0.9849	286	67.87

Method 2 Results	
Average ΔP	1.0156
Average Sqrt ΔP	1.0070
Average Velocity (ft/sec)	69.39
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,059,436
Standard cubic feet per minute (SCFM)	731,643
Standard cubic feet per hour (SCFH)	43,898,567
Dry Standard cubic feet per minute (DSCFM)	632,043
Dry Standard cubic feet per hour (DSCFH)	37,922,596

Leak Checks:					
Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	12.0	in. Hg	
Post-Test:	0.000	CFM @	12.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

METHOD 2 VOLUMETRIC FLOW DATA

Project No:	305091	**Operating Level:**	High
Company:	Primary Energy	**Run No.:**	10
Plant:	Cokenergy Facility	**Start Date:**	9/12/2018
Unit ID:	HRCC	**End Date:**	9/12/2018
Sample Location:	Stack 201	**Start Time:**	13:25
Pitot ID:	888A	**End Time:**	13:33
Pitot Coefficient:	0.84	**RM Testers:**	RN

Test Parameters			**Moisture Determination**	
P_{bar} - Barometric pressure, inches Hg		29.26	Method Used:	4
P_g - Stack Pressure, inches of H_2O		-1.00	Meter Calibration:	0.997
P_s - Absolute stack pressure, inches Hg		29.19	Initial Meter Volume (cf)	485.400
T_s - Average stack temperature, ^oF		287	Final Meter Volume (cf)	507.710
Gas Molecular Weight Method:	% CO_2:	4.7	Meter Temperature, deg F:	88.0
Method 3A, Instrumental	% O_2:	13.5	Meter Volume Vm(std):	21.064
	% Nitrogen:	81.8	Meter Volume Vw(std):	3.461
M_d - dry basis lb/lb mole		29.29	Delta H:	2.00
M_s - wet basis lb/lb mole		27.70	Train Initial Weight, g:	3447.1
Stack Diameter, Feet		18.00	Train Final Weight, g:	3520.5
A - Cross Sectional Area of Stack, Ft^2		254.47	Condensate Initial Vol, mL:	0.0
B_{ws} - Moisture content fraction		0.141	Condensate Final Vol, mL:	0.0

Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)	Port Point	ΔP (in. H_2O)	√ΔP	Temp (°F)	Velocity (V_S)
A 01	1.00	1.0000	287	69.03	**C 01**	0.95	0.9747	287	67.28
A 02	1.00	1.0000	287	69.03	**C 02**	0.98	0.9899	287	68.34
A 03	1.00	1.0000	287	69.03	**C 03**	0.98	0.9899	287	68.34
A 04	0.95	0.9747	287	67.28	**C 04**	0.82	0.9055	287	62.51
B 01	0.98	0.9899	287	68.34	**D 01**	1.10	1.0488	287	72.40
B 02	0.94	0.9695	287	66.93	**D 02**	1.10	1.0488	287	72.40
B 03	0.98	0.9899	287	68.34	**D 03**	1.20	1.0954	287	75.62
B 04	0.85	0.9220	287	63.64	**D 04**	0.96	0.9798	287	67.63

Method 2 Results	
Average ΔP	0.9869
Average Sqrt ΔP	0.9924
Average Velocity (ft/sec)	68.51
No WAF Applied to this Test	
Actual cubic feet per minute (ACFM)	1,045,987
Standard cubic feet per minute (SCFM)	721,206
Standard cubic feet per hour (SCFH)	43,272,390
Dry Standard cubic feet per minute (DSCFM)	619,433
Dry Standard cubic feet per hour (DSCFH)	37,165,989

Leak Checks:

Pitot:	Pre-Test:	Pass			
	Post-Test:	Pass			
Moisture Train:					
Pre-Test:	0.000	CFM @	10.0	in. Hg	
Post-Test:	0.000	CFM @	10.0	in. Hg	

Comments:

Standard conditions of 29.92 in/Hg and 68º F

Method 4 Test Run Data Summary

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRCC
Location: Stack 201

Test Run Number	1	2	3	4	5	6	7	8	9	10	Average
Source Condition	High	High	High	High	High	High	High	High	High	High	
Date	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	9/12/18	
Start Time	7:15	8:00	8:40	9:20	10:00	10:45	11:25	12:05	12:45	13:25	
End Time	7:45	8:30	9:10	9:50	10:30	11:15	11:55	12:35	13:15	13:55	
Sample Duration (min):	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Average Stack Temp, T_s (^oF):	286.0	285.0	285.0	285.0	286.0	287.0	287.0	286.0	286.0	287.0	286.0
Gas CO_2 Content (%v/v dry):	5.2	5.1	5.1	5.0	5.0	4.9	4.9	4.8	4.7	4.7	4.9
Gas O_2 Content (%v/v dry):	12.6	12.7	12.8	13.0	13.0	13.1	13.2	13.4	13.5	13.5	13.1
Gas N_2 Content (%v/v dry):	82.2	82.2	82.1	82.0	82.0	82.0	81.9	81.8	81.8	81.8	82.0
Gas Dry MW, M_d (lb/lb-mole):	29.34	29.32	29.33	29.32	29.32	29.31	29.31	29.30	29.29	29.29	29.31
Gas Wet MW, M_s (lb/lb-mole):	27.77	27.68	27.74	27.77	27.74	27.78	27.73	27.81	27.75	27.70	27.75
Barometric Pressure, P_{bar} ("Hg)	29.26	29.28	29.28	29.28	29.28	29.31	29.28	29.28	29.26	29.26	29.28
Flue Pressure, P_s ("Hg)	29.19	29.21	29.21	29.21	29.21	29.24	29.21	29.21	29.19	29.19	29.20
Meter Y	0.997	0.997	0.997	0.997	0.997	0.997	0.997	0.997	0.997	0.997	0.997
Meter Pressure, P_m ("H_2O):	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Meter Temperature, T_m (^oF):	70.9	75.0	80.1	81.8	81.5	80.4	79.8	82.7	85.3	88.0	80.5
Meter Volume, V_m (dcf):	22.456	22.510	22.541	23.131	22.641	23.205	22.893	22.640	22.768	22.310	22.710
Meter Volume, V_m (L):	635.883	637.412	638.290	654.997	641.122	657.092	648.258	641.093	644.718	631.749	643.061
Meter Volume, V_m (dcm):	0.636	0.637	0.638	0.655	0.641	0.657	0.648	0.641	0.645	0.632	0.643
Meter Volume, $V_{m(std)}$ (dscf):	21.884	21.784	21.609	22.106	21.648	22.254	21.960	21.600	21.601	21.064	21.751
Meter Volume, $V_{m(std)}$ (dscm):	0.620	0.617	0.612	0.626	0.613	0.630	0.622	0.612	0.612	0.596	0.616
Moisture Volume, $V_{wc(std)}$ (scf):	3.503	3.701	3.527	3.503	3.522	3.480	3.560	3.296	3.404	3.461	3.496
Fractional Moisture Content, B_{ws}:	0.138	0.145	0.140	0.137	0.140	0.135	0.139	0.132	0.136	0.141	0.138

TRC

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	1	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--

Unit Operating Mode: High   Barometric Pressure ("Hg): 29.26   Static Pressure ("H_2O): -1.00

Pre Leak Check: 0.000 @ 12

Post Leak Check: 0.000 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (^oF)	Dry Gas Meter Outlet (^oF)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (^oF)	Stack (^oF)
1-1	7:15:00	279.000	2.0	70.0	70.0	1.0	59.0	286.0
	7:20:00	282.760	2.0	72.0	70.0	1.0	60.0	286.0
	7:25:00	286.560	2.0	72.0	70.0	1.0	60.0	286.0
	7:30:00	290.340	2.0	71.0	70.0	1.0	61.0	286.0
	7:35:00	294.070	2.0	72.0	71.0	1.0	61.0	286.0
	7:40:00	297.770	2.0	72.0	71.0	1.0	62.0	286.0
	7:45:00	301.456						
	Net Volume:	22.456						
		Average:	2.00	70.9			60.5	286.0

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3108.3	3182.6
	Net:	74.3

Gas Analysis (%v/v dry)

	O_2	CO_2
	12.6	5.2
Average:	12.6	5.2

TRC

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	2	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.28	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 10

Post Leak Check: 0.000 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (^oF)	Dry Gas Meter Outlet (^oF)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (^oF)	Stack (^oF)
1-1	8:00:00	301.800	2.0	72.0	72.0	2.0	58.0	285.0
	8:05:00	305.590	2.0	75.0	73.0	2.0	58.0	285.0
	8:10:00	309.400	2.0	76.0	74.0	2.0	59.0	285.0
	8:15:00	313.400	2.0	77.0	75.0	2.0	60.0	285.0
	8:20:00	316.880	2.0	77.0	75.0	2.0	60.0	285.0
	8:25:00	320.600	2.0	79.0	75.0	2.0	61.0	285.0
	8:30:00	324.310						
	Net Volume:	22.510						
		Average:	2.00	75.0			59.3	285.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3336.7	3415.2
	Net:	78.5

Gas Analysis (%v/v dry)	
O_2	CO_2
12.7	5.1
Average: 12.7	5.1

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	3	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.28	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 12

Post Leak Check: 0.000 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	8:40:00	324.500	2.0	80.0	78.0	1.0	60.0	285.0
	8:45:00	328.310	2.0	80.0	78.0	1.0	60.0	285.0
	8:50:00	332.080	2.0	81.0	78.0	1.0	62.0	285.0
	8:55:00	335.890	2.0	82.0	78.0	1.0	62.0	285.0
	9:00:00	339.600	2.0	84.0	79.0	1.0	63.0	285.0
	9:05:00	343.340	2.0	84.0	79.0	1.0	63.0	285.0
	9:10:00	347.041						
	Net Volume:	22.541						
		Average:	2.00	80.1			61.7	285.0

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3181.5	3256.3
	Net:	74.8

Gas Analysis (%v/v dry)

	O_2	CO_2
	12.8	5.1
Average:	12.8	5.1

TRC

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	4	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.28	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 12

Post Leak Check: 0.000 @ 12

		Dry Gas Meter						
Port & Point ID	Clock Time	Volume Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	9:20:00	347.300	2.0	81.0	80.0	2.0	61.0	285.0
	9:25:00	351.150	2.0	83.0	80.0	2.0	61.0	285.0
	9:30:00	355.030	2.0	83.0	80.0	2.0	62.0	285.0
	9:35:00	358.890	2.0	83.0	81.0	2.0	62.0	285.0
	9:40:00	362.760	2.0	84.0	81.0	2.0	63.0	285.0
	9:45:00	366.600	2.0	84.0	81.0	2.0	63.0	285.0
	9:50:00	370.431						
	Net Volume:	23.131						
		Average:	2.00	81.8			62.0	285.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3395.4	3469.7
	Net:	74.3

Gas Analysis (%v/v dry)	
O_2	CO_2
13.0	5.0
Average: 13.0	5.0

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Moisture Test Run Data

Company: Primary Energy	Project #: 305091	Console Operator: Ryan Novosel	
Plant: Cokenergy Facility	Test Method: 4	Console ID: E44	
Unit ID: HRCC	Test Run #: 5	Meter Y : 0.997	
Location: Stack 201	Test Date(s): 9/12/2018	Orifice ΔH@i: 1.676	
		Probe Temp. °F --	
Unit Operating Mode: High	Barometric Pressure ("Hg): 29.28	Static Pressure ("H_2O): -1.00	

Pre Leak Check: 0.000 @ 13

Post Leak Check: 0.000 @ 13

		Dry Gas Meter						
Port & Point ID	Clock Time	Volume Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	10:00:00	370.700	2.0	83.0	81.0	2.0	59.0	286.0
	10:05:00	374.500	2.0	83.0	81.0	2.0	60.0	286.0
	10:10:00	378.290	2.0	84.0	81.0	2.0	60.0	286.0
	10:15:00	382.060	2.0	82.0	80.0	2.0	61.0	286.0
	10:20:00	385.880	2.0	82.0	80.0	2.0	61.0	286.0
	10:25:00	389.600	2.0	81.0	80.0	2.0	62.0	286.0
	10:30:00	393.341						
	Net Volume:	22.641						
		Average:	2.00	81.5			60.5	286.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3136.5	3211.2
	Net:	74.7

Gas Analysis (%v/v dry)		
	O_2	CO_2
	13.0	5.0
Average:	13.0	5.0

TRC

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	6	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.31	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 10

Post Leak Check: 0.000 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (^oF)	Dry Gas Meter Outlet (^oF)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (^oF)	Stack (^oF)
1-1	10:45:00	393.500	2.0	80.0	79.0	2.0	60.0	287.0
	10:50:00	397.390	2.0	81.0	80.0	2.0	60.0	287.0
	10:55:00	401.200	2.0	82.0	80.0	2.0	61.0	287.0
	11:00:00	405.090	2.0	82.0	79.0	2.0	62.0	287.0
	11:05:00	409.000	2.0	82.0	79.0	2.0	62.0	287.0
	11:10:00	412.900	2.0	82.0	79.0	2.0	63.0	287.0
	11:15:00	416.705						
	Net Volume:	23.205						
		Average:	2.00	80.4			61.3	287.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3384.5	3458.3
		Net: 73.8

Gas Analysis (%v/v dry)	
O_2	CO_2
13.1	4.9
Average: 13.1	4.9

TRC

Moisture Test Run Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit ID: HRCC
Location: Stack 201

Project #: 305091
Test Method: 4
Test Run #: 7
Test Date(s): 9/12/2018

Console Operator: Ryan Novosel
Console ID: E44
Meter Y : 0.997
Orifice ΔH@i: 1.676
Probe Temp. °F --

Unit Operating Mode: High
Barometric Pressure ("Hg): 29.28
Static Pressure ("H_2O): -1.00

Pre Leak Check: 0.000 @ 10
Post Leak Check: 0.000 @ 10

		Dry Gas Meter						
Port & Point ID	Clock Time	Volume Cubic Feet	Pressure ("H_2O)	Inlet (^oF)	Outlet (^oF)	Vacuum ("Hg)	Impinger Outlet (^oF)	Stack (^oF)
1-1	11:25:00	416.848	2.0	79.0	78.0	2.0	61.0	287.0
	11:30:00	420.650	2.0	80.0	78.0	2.0	61.0	287.0
	11:35:00	424.440	2.0	81.0	78.0	2.0	62.0	287.0
	11:40:00	428.320	2.0	82.0	79.0	2.0	62.0	287.0
	11:45:00	432.150	2.0	82.0	79.0	2.0	63.0	287.0
	11:50:00	435.930	2.0	82.0	79.0	2.0	63.0	287.0
	11:55:00	439.741						
	Net Volume:	22.893						
		Average:	2.00	79.8			62.0	287.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3080.8	3156.3
		Net: 75.5

Gas Analysis (%v/v dry)	
O_2	CO_2
13.2	4.9
Average: 13.2	4.9

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	8	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.28	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 10

Post Leak Check: 0.000 @ 10

		Dry Gas Meter						
Port & Point ID	Clock Time	Volume Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	12:05:00	439.810	2.0	81.0	81.0	2.0	58.0	286.0
	12:10:00	443.600	2.0	83.0	81.0	2.0	58.0	286.0
	12:15:00	447.370	2.0	83.0	81.0	2.0	59.0	286.0
	12:20:00	451.130	2.0	85.0	82.0	2.0	59.0	286.0
	12:25:00	454.900	2.0	85.0	82.0	2.0	60.0	286.0
	12:30:00	458.700	2.0	86.0	82.0	2.0	60.0	286.0
	12:35:00	462.450						
	Net Volume:	22.640						
		Average:	2.00	82.7			59.0	286.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3377.2	3447.1
	Net:	69.9

Gas Analysis (%v/v dry)		
	O_2	CO_2
	13.4	4.8
Average:	13.4	4.8

TRC

Moisture Test Run Data

Company:	Primary Energy	Project #:	305091	Console Operator:	Ryan Novosel
Plant:	Cokenergy Facility	Test Method:	4	Console ID:	E44
Unit ID:	HRCC	Test Run #:	9	Meter Y :	0.997
Location:	Stack 201	Test Date(s):	9/12/2018	Orifice ΔH@i:	1.676
				Probe Temp. °F	--
Unit Operating Mode:	High	Barometric Pressure ("Hg):	29.26	Static Pressure ("H_2O):	-1.00

Pre Leak Check: 0.000 @ 12

Post Leak Check: 0.000 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	12:45:00	462.500	2.0	85.0	83.0	2.0	61.0	286.0
	12:50:00	466.200	2.0	86.0	83.0	2.0	61.0	286.0
	12:55:00	469.800	2.0	86.0	84.0	2.0	62.0	286.0
	13:00:00	473.770	2.0	87.0	84.0	2.0	63.0	286.0
	13:05:00	477.600	2.0	88.0	85.0	2.0	63.0	286.0
	13:10:00	481.460	2.0	88.0	85.0	2.0	64.0	286.0
	13:15:00	485.268						
	Net Volume:	22.768						
		Average:	2.00	85.3			62.3	286.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3156.3	3228.5
	Net:	72.2

Gas Analysis (%v/v dry)	
O_2	CO_2
13.5	4.7
Average: 13.5	4.7

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TRC

Moisture Test Run Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit ID: HRCC
Location: Stack 201

Project #: 305091
Test Method: 4
Test Run #: 10
Test Date(s): 9/12/2018

Console Operator: Ryan Novosel
Console ID: E44
Meter Y : 0.997
Orifice ΔH@i: 1.676
Probe Temp. °F --

Unit Operating Mode: High
Barometric Pressure ("Hg): 29.26
Static Pressure ("H_2O): -1.00

Pre Leak Check: 0.000 @ 10
Post Leak Check: 0.000 @ 10

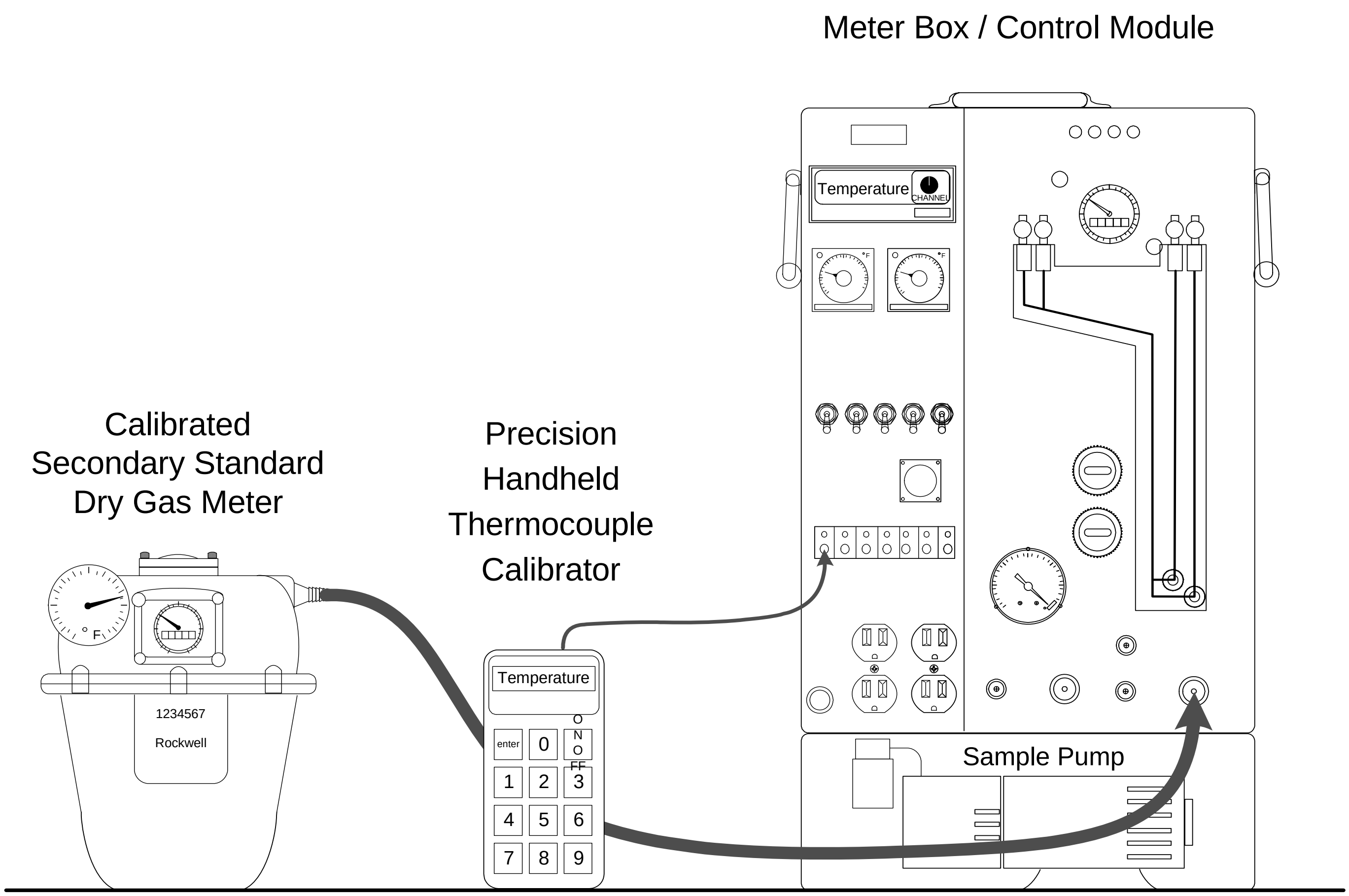
Port & Point ID	Clock Time	Dry Gas Meter Volume Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	13:25:00	485.400	2.0	87.0	85.0	2.0	60.0	287.0
	13:30:00	489.440	2.0	89.0	85.0	2.0	60.0	287.0
	13:35:00	492.250	2.0	89.0	86.0	2.0	61.0	287.0
	13:40:00	496.130	2.0	91.0	86.0	2.0	61.0	287.0
	13:45:00	500.000	2.0	92.0	87.0	2.0	62.0	287.0
	13:50:00	503.850	2.0	92.0	87.0	2.0	62.0	287.0
	13:55:00	507.710						
	Net Volume:	22.310						
		Average:	2.00	88.0			61.0	287.0

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3447.1	3520.5
	Net:	73.4

Gas Analysis (%v/v dry)	
O_2	CO_2
13.5	4.7
Average: 13.5	4.7

Equipment Configuration for Meter Box Calibration

USEPA Promulgated Method 5



Pre Test DGM Calibration

(before use, as left data)

Control Module I.D. No.	E44	System Leak Check:	Stable @ 8" w.c. @ > 5 min.	Date:	03-21-2018
Standard Meter I.D. No.:	3623853	Standard Meter Calibration Date:	08-04-2017	Calibrated By:	L. Campo
Standard Meter (Y_{ds}):	0.9941	Standard Meter Calibration Due Date:	08-04-2018	Barometric Pressure :	29.23

Run Number		Orifice Setting in.H_20	Meter Pressure in.H_20	Standard Meter Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Time Min.	Time Sec.	Gamma Correction Coef. Y	Pressure equal to: 0.75 cfm @ STP (DH@)	Flow Rate (Q) scfm
Initial				988.248	933.385	74	75	75						
Final				995.554	940.698	74	76	76						
Difference	1	0.35	0.35	7.306	7.313	74	76	76	76	20	2	0.995	1.528	0.35
Initial				4.192	949.326	74	75	75						
Final				12.444	957.550	74	76	76						
Difference	2	0.85	0.85	8.252	8.224	74	76	76	76	15	5	0.998	1.649	0.53
Initial				13.068	958.171	74	76	76						
Final				21.254	966.327	74	76	76						
Difference	3	2.00	2.00	8.186	8.156	74	76	76	76	10	20	0.996	1.849	0.76
											Pre Test Calibration Factor (Y_{avg})	0.997	1.676	

Specifications: CFR 40, Part 60, Appendix A, Method 5, section 10.3.1. Calibration Before Use.

Pre Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 03-21-2018

Name: L. Campo

Control Module Number: E44

Ambient Temperature: 74 ^{o}F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 6/1/2017
Due date of reference std. calibration verification: 6/1/2018

Reference Thermometer (^{o}F)	Thermometer Under Test (^{o}F)	Temperature Difference (%)
0	2	0.4
600	602	0.2
1200	1201	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. } (^{o}F + 460) - \text{Therm. under test temp. } (^{o}F + 460)}{\text{Reference std temp. } (^{o}F + 460)} \times 100 \leq 1.5\,\%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

Post Test DGM Calibration

(after use, as found data)

Control Module I.D. No.	E-44	System Leak Check:	Passed @ > 8" w.c. @ > 5 min	Date:	10-09-2018
Standard Meter I.D. No.:	3623853	Standard Meter Calibration Date:	8-22-2018	Calibrated By:	L. Campo
Standard Meter (Y_{ds}):	0.9972	Standard Meter Calibration Due Date:	8-22-2019	Barometric Pressure :	29.18

Run Number	Sample Train Vacuum (Hg") (avg test value)	Sample Train DH@$_{avg}$ (H_2O") (avg test value)	Standard Meter Gas Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Time Min.	Time Sec.	Gamma Correction Coef Y	Pressure equal to: 0.75 cfm @ STP (DH@)	Flow Rate (Q) scfm
Initial			840.636	537.140	73	74	74						
Final			848.663	545.106	73	75	75						
Difference 1	0	0.85	8.027	7.966	73	75	75	75	15	16	1.006	1.785	0.50
Initial			848.663	545.106	73	75	75						
Final			856.667	553.042	73	76	76						
Difference 2	0	0.85	8.004	7.936	73	76	76	76	15	19	1.008	1.804	0.50
Initial			856.667	553.042	73	76	76						
Final			864.612	560.928	73	77	77						
Difference 3	0	0.85	7.945	7.886	73	77	77	77	15	15	1.009	1.812	0.50

Post Test Calibration Factor (Y_{avg}	1.008	1.800
Pre Test Calibration Factor (Y_{avg}):	0.997	
Pre Test Calibration (Date):	03-21-2018	
% diff. between Pre & Post (Y_{avg}):	1.1%	

Specifications: CFR 40, Part 60, Appendix A, Method 5, section 10.3.2. Calibration After Use.

If difference between Pre & Post is less than 5% use Pre Test (Y)

Post Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 10-09-2018

Name: L. Campo

Control Module Number: E-44

Ambient Temperature: 73 ^oF

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *****
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 5/31/2018
Due date of reference std. calibration verification: 5/31/2019

Reference Thermometer (^oF)	Thermometer Under Test (^oF)	Temperature Difference (%)
0	1	0.2
600	601	0.1
1200	1201	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. } (^oF + 460) - \text{ Therm. under test temp. } (^oF + 460)}{\text{Reference std temp. } (^oF + 460)} \times 100 \leq 1.5\,\%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

Field Calibration Tool Identification

Analyst:	Ryan Novosel
Date:	9/11/2018
Project Number:	305091
Client:	Primary Energy
Test Location:	Stack 201

Calibration Tools: Include all of the tools from the field calibration kit that you will be using on this project. (See SOP AM-CAL-025 for instructions on re-verification)

Item	ID#	S/N	Calibration Due Date
Digital Caliper	DC014	--	9/7/2019
Thermometer	TH014	122436576	9/7/2017
Barometer	BA014	160253744	3/8/2019
Calibration Weight	W100-014	2341	9/7/2019
Calibration Weight A	W500-014	4593	9/7/2019
Calibration Weight B	W500/2-014	5094	9/7/2019
Type A Angle Finder	AF014	--	9/7/2019
Plastic/Magnetic Torpedo Level	TL014	--	--

Pre-Test Thermocouple Calibration Checks

Analyst:	Ryan Novosel
Date:	9/11/18
Project Number:	305091
Client:	Primary Energy
Test Location:	Stack 201

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E44
Probe ID#	888
Test Location/Measurement Point Info:	Ground
NIST Thermometer ID #	TH014

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, ^oF	NIST Thermometer Temp, ^oF	Difference, ^oF (± 2)	Continuity Check	Overall Status
Stack	80	80.5	0.5	Pass	Pass
Filter					
Impinger Exit	79	80	1.0	Pass	Pass
Meter in	80	80.2	0.2	Pass	Pass
Meter Out	80	80.3	0.3	Pass	Pass
Probe					
Other					
Other					

Notes:

Post-Test Thermocouple Calibration Checks

Analyst:	Ryan Novosel
Date:	9/13/18
Project Number:	305091
Client:	Primary Energy
Test Location:	Stack 201

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E44
Probe ID#	888
Test Location/Measurement Point Info:	Warehouse
NIST Thermometer ID #	TH014

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, ^{o}F	NIST Thermometer Temp, ^{o}F	Difference, ^{o}F (± 2)	Continuity Check	Overall Status
Stack	75	75.9	0.9	Pass	Pass
Filter					
Impinger Exit	76	76.4	0.4	Pass	Pass
Meter in	76	77	1.0	Pass	Pass
Meter Out	76	77	1.0	Pass	Pass
Probe					
Other					
Other					

Notes:

PRE-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

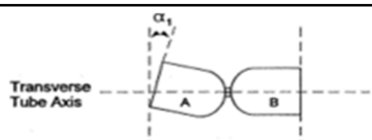
Pitot Tube No. : 888   Date: 9/11/2018   Analyst: Ryan Novosel

Project Number: 305091   Client: Primary Energy   Test Location: Stack 201

Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

x yes ____ no

Comments: ______________________________

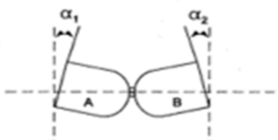


(a)

Limit:
$\alpha_1 < 10°$

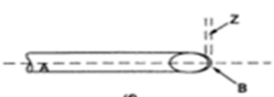
(e)

Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



(b)

Limit:
$\alpha_2 < 10°$



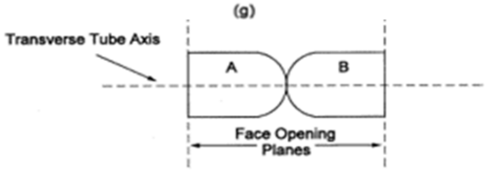
(f)

Limit:
$Z \leq 1/8$ (0.125) inch

(d)

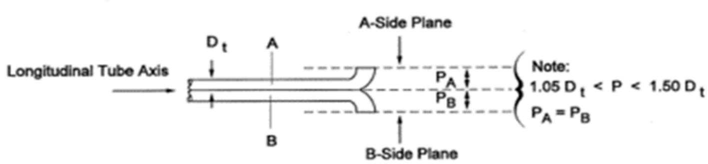
(g)

Limit:
$W \leq 1/32$ (0.0132) inch

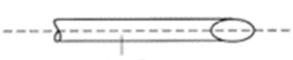


(a)

Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



Requirement:
Both legs of equal length and centerlines coincident when viewed

POST-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

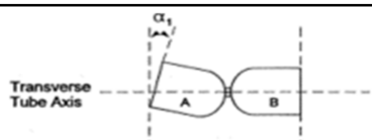
Pitot Tube No. : 888   Date: 9/13/2018   Analyst: Ryan Novosel

Project Number: 305091   Client: Primary Energy   Test Location: Stack 201

Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

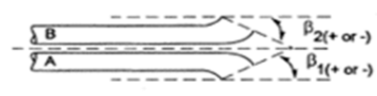
_____ yes   _______ no

Comments: ____________________



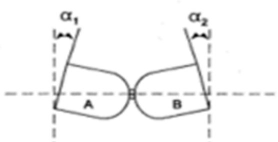
(a)

Limit:
$\alpha_1 < 10°$



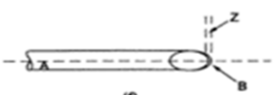
(e)

Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



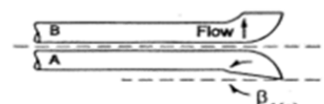
(b)

Limit:
$\alpha_2 < 10°$



(f)

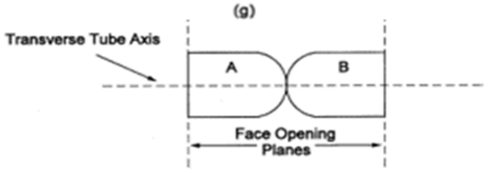
Limit:
$Z \leq 1/8$ (0.125) inch



(d)

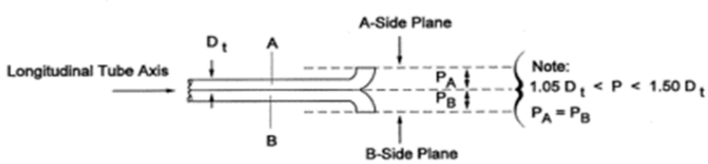
(g)

Limit:
$W \leq 1/32$ (0.0132) inch

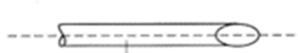


(a)

Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



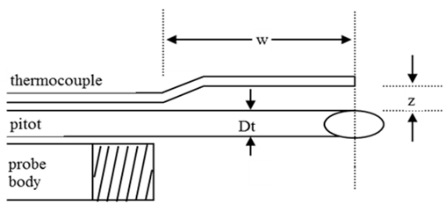
Requirement:
Both legs of equal length and centerlines coincident when viewed

PRE-TEST PITOT TUBE ASSEMBLY INSPECTION

Analyst:	Ryan Novosel
Date:	9/11/18
Project Number:	305091
Test Location:	Stack 201
EPA Probe Configuration:	Method 2

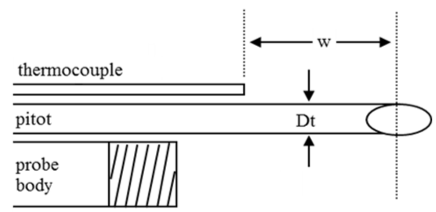
Pitot Assembly Intercomponent Spacings Meet Requirements x Yes ____ No
(See SOP AM-CAL-006 for Instructions)

Configuration A

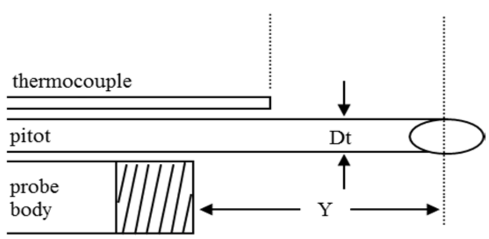


Requirements
D_t = ≥ 3/16" to ≤ 3/8"
W = ≥ 3 inches
Z = ≥ 0.75 inches

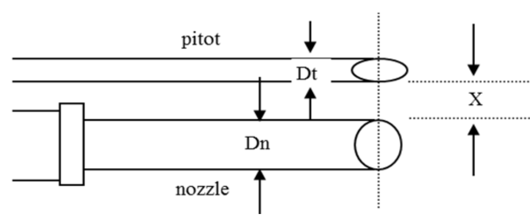
Configuration B



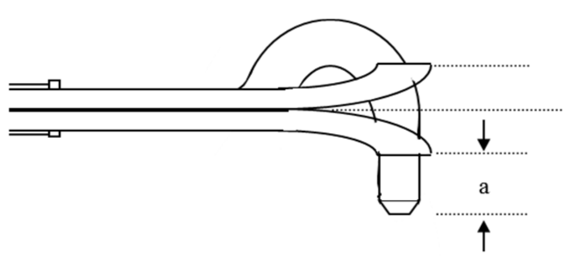
Requirements
D_t = ≥ 3/16" to ≤ 3/8"
W = ≥ 2 inches



Requirements
D_t = ≥ 3/16" to ≤ 3/8"



Requirements
D_t = ≥ 3/16" to ≤ 3/8"
X = ≥ 0.75 inches



Requirements

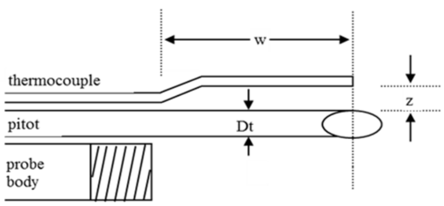
a = ≥ 0 inches

POST-TEST PITOT TUBE ASSEMBLY INSPECTION

Analyst:	Ryan Novosel
Date:	9/13/18
Project Number:	305091
Test Location:	Stack 201
EPA Probe Configuration:	Method 2

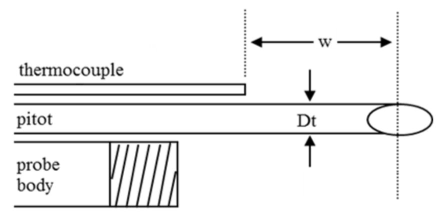
Pitot Assembly Intercomponent Spacings Meet Requirements x Yes ____ No
(See SOP AM-CAL-006 for Instructions)

Configuration A

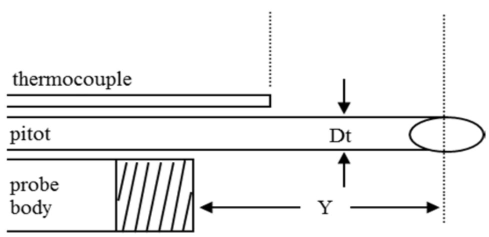


Requirements
D_t = ≥ 3/16" to ≤ 3/8"
W = ≥ 3 inches
Z = ≥ 0.75 inches

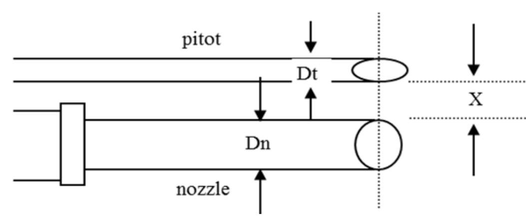
Configuration B



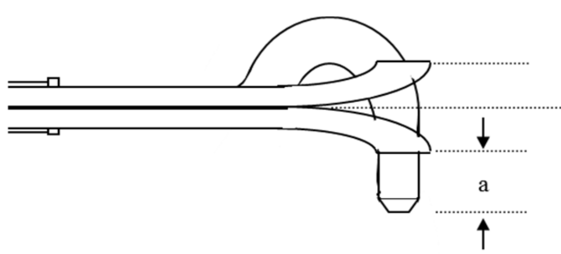
Requirements
D_t = ≥ 3/16" to ≤ 3/8"
W = ≥ 2 inches



Requirements
D_t = ≥ 3/16" to ≤ 3/8"



Requirements
D_t = ≥ 3/16" to ≤ 3/8"
X = ≥ 0.75 inches



Requirements

a = ≥ 0 inches

Instrumental Reference Method Field Data

Project Number:	305091	Date:	9/12/2018
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRCC	Recorded by:	Gavin Lewis
Sample Location:	Stack 201	Fc Factor:	-
Load Level/Condition:	> 50% load	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):		Extractive (Dry)	
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	Thermo	43C	509110869
CO	-	-	-
CO_2	Servomex	1440	01420c/1485
O_2	Servomex	1440	01415c/1492

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas	Cal Gas Cylinder Information			Analyzer	Absolute	%	Error
	Level	Concentration	Exp Date	ID #	Response	Difference	Cal Error	Status
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	0	01/24/26	EB0041701	0.50	0.50	0.11	Pass
	Mid	201.8	06/13/25	SG9135799BAL	202.31	0.51	0.11	Pass
	High	452.6	01/03/26	SG9151303 BAL	456.51	3.91	0.86	Pass
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	01/24/26	EB0041701	0.03	0.03	0.17	Pass
	Mid	8.798	05/17/26	CC473136	8.83	0.03	0.18	Pass
	High	17.86	05/15/23	CC19838	17.86	0.00	0.00	Pass
O_2	Low	0	01/24/26	EB0041701	0.03	0.03	0.14	Pass
	Mid	9.976	05/17/26	CC473136	10.08	0.10	0.47	Pass
	High	22.01	05/15/23	CC19838	22.07	0.06	0.27	Pass

CEM System Information			
CEM System Probe Type (Moisture Basis):		Extractive (Dry)	
Pollutant	Manufacturer/Model	Serial Number	
		Primary	Backup
NO_X	-	-	-
SO_2	Thermo Scientific 43i-HL	1152150034	-
CO	-	-	-
CO_2	-	-	-
O_2	Brand Gaus 4705	11401	-

Instrumental Reference Method Field Data

Project Number:	305091	Start Date:	9/12/2018
Customer:	Primary Energy	End Date:	9/12/2018
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis
Load Level/Condition:	> 50% load	Fc Factor:	-
		Fd Factor:	-

Actual Concentration of the Upscale Calibration Gas, C_{MA}

	NO_X	SO_2	CO	CO_2	O_2
C_{MA} (Day 1)	-	201.8	-	8.798	9.976
C_{MA} (Day 2)	-	-	-	-	-

System Responses to Zero Calibration Gas

Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	2.29	3.50	-	-	0.05	0.05	0.05	0.05
2	-	-	3.50	4.74	-	-	0.05	0.05	0.05	0.05
3	-	-	4.74	3.50	-	-	0.05	0.05	0.05	0.05
4	-	-	3.50	3.42	-	-	0.05	0.05	0.05	0.05
5	-	-	3.42	4.42	-	-	0.05	0.05	0.05	0.05
6	-	-	4.42	2.69	-	-	0.05	0.05	0.05	0.05
7	-	-	2.69	3.42	-	-	0.05	0.05	0.05	0.05
8	-	-	3.42	3.33	-	-	0.05	0.05	0.05	0.05
9	-	-	3.33	3.21	-	-	0.05	0.05	0.05	0.05
10	-	-	3.21	2.25	-	-	0.05	0.05	0.05	0.05

System Responses to Upscale Calibration Gas

Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	197.26	196.64	-	-	8.76	8.77	9.98	9.98
2	-	-	196.64	196.89	-	-	8.77	8.77	9.98	9.98
3	-	-	196.89	197.72	-	-	8.77	8.78	9.98	9.98
4	-	-	197.72	198.01	-	-	8.78	8.77	9.98	9.98
5	-	-	198.01	197.84	-	-	8.77	8.76	9.98	9.98
6	-	-	197.84	196.75	-	-	8.76	8.76	9.98	9.98
7	-	-	196.75	197.60	-	-	8.76	8.76	9.98	9.98
8	-	-	197.60	197.22	-	-	8.76	8.75	9.98	9.98
9	-	-	197.22	197.39	-	-	8.75	8.75	9.98	9.98
10	-	-	197.39	196.06	-	-	8.75	8.73	9.98	9.98

Instrumental Reference Method Calibration Data

Project Number:	305091	Start Date:	9/12/2018
Customer:	Primary Energy	End Date:	9/12/2018
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis

SO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (ppm)	Direct Cal Response (ppm)	System Response (ppm)	System Bias (% of span)	System Response (ppm)	System Bias (% of span)	(% of span)
1	Low Level Gas	452.6	0.5	2.29	0.4	3.50	0.7	0.3
	Upscale Gas	452.6	202.31	197.26	-1.1	196.64	-1.3	0.1
2	Low Level Gas	452.6	0.5	3.50	0.7	4.74	0.9	0.3
	Upscale Gas	452.6	202.31	196.64	-1.3	196.89	-1.2	0.1
3	Low Level Gas	452.6	0.5	4.74	0.9	3.50	0.7	0.3
	Upscale Gas	452.6	202.31	196.89	-1.2	197.72	-1.0	0.2
4	Low Level Gas	452.6	0.5	3.50	0.7	3.42	0.6	0.0
	Upscale Gas	452.6	202.31	197.72	-1.0	198.01	-1.0	0.1
5	Low Level Gas	452.6	0.5	3.42	0.6	4.42	0.9	0.2
	Upscale Gas	452.6	202.31	198.01	-1.0	197.84	-1.0	0.0
6	Low Level Gas	452.6	0.5	4.42	0.9	2.69	0.5	0.4
	Upscale Gas	452.6	202.31	197.84	-1.0	196.75	-1.2	0.2
7	Low Level Gas	452.6	0.5	2.69	0.5	3.42	0.6	0.2
	Upscale Gas	452.6	202.31	196.75	-1.2	197.60	-1.0	0.2
8	Low Level Gas	452.6	0.5	3.42	0.6	3.33	0.6	0.0
	Upscale Gas	452.6	202.31	197.60	-1.0	197.22	-1.1	0.1
9	Low Level Gas	452.6	0.5	3.33	0.6	3.21	0.6	0.0
	Upscale Gas	452.6	202.31	197.22	-1.1	197.39	-1.1	0.0
10	Low Level Gas	452.6	0.5	3.21	0.6	2.25	0.4	0.2
	Upscale Gas	452.6	202.31	197.39	-1.1	196.06	-1.4	0.3

Instrumental Reference Method Calibration Data

Project Number:	305091	Start Date:	9/12/2018
Customer:	Primary Energy	End Date:	9/12/2018
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis

CO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span Span Gas Concentration (%vol)	Cdir Direct Cal Response (%vol)	Initial Values System Response (%vol)	Initial Values System Bias (% of span)	Final Values System Response (%vol)	Final Values System Bias (% of span)	Drift (% of span)
1	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.76	-0.4	8.77	-0.3	0.1
2	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.77	-0.3	8.77	-0.3	0.0
3	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.77	-0.3	8.78	-0.3	0.1
4	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.78	-0.3	8.77	-0.3	0.1
5	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.77	-0.3	8.76	-0.4	0.1
6	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.76	-0.4	8.76	-0.4	0.0
7	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.76	-0.4	8.76	-0.4	0.0
8	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.76	-0.4	8.75	-0.4	0.1
9	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.75	-0.4	8.75	-0.4	0.0
10	Low Level Gas	17.86	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.86	8.83	8.75	-0.4	8.73	-0.6	0.1

Instrumental Reference Method Calibration Data

Project Number:	305091	Start Date:	9/12/2018
Customer:	Primary Energy	End Date:	9/12/2018
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis

O_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (ppm)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
2	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
3	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
4	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
5	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
6	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
7	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
8	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
9	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0
10	Low Level Gas	22.01	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.01	10.08	9.98	-0.5	9.98	-0.5	0.0

Instrumental Reference Method
Calibration Corrected Test Data

Project Number:	305091	Start Date:	9/12/18
Customer:	Primary Energy	End Date:	9/12/18
Unit Identification:	HRCC	Facility:	Cokenergy Facility
Sample Location:	Stack 201	Recorded by:	Gavin Lewis
RM Probe Type:	Extractive (Dry)	Fc Factor:	-
Load Level/Condition:	> 50% load	Fd Factor:	-

Reference Method Results, As Measured Moisture Basis

Run #	Date	Start Time	End Time	NOX ppmvd	SO2 ppmvd	CO ppmvd	CO2 % v/v dry	O2 % v/v dry
1	9/12/18	7:15	7:35	-	155.5	-	5.2	12.6
2	9/12/18	8:00	8:20	-	151.7	-	5.1	12.7
3	9/12/18	8:40	9:00	-	155.5	-	5.1	12.8
4	9/12/18	9:20	9:40	-	144.9	-	5.0	13.0
5	9/12/18	10:00	10:20	-	139.3	-	5.0	13.0
6	9/12/18	10:45	11:05	-	132.6	-	4.9	13.1
7	9/12/18	11:25	11:45	-	134.6	-	4.9	13.2
8	9/12/18	12:05	12:25	-	135.1	-	4.8	13.4
9	9/12/18	12:45	13:05	-	128.3	-	4.7	13.5
10	9/12/18	13:25	13:45	-	123.3	-	4.7	13.5

Emission Rate Calculation Summary

Run #	NOX lb/MMBtu	SO2 lb/MMBtu	CO lb/MMBtu	NOX lb/hr	SO2 lb/hr	CO lb/hr	Flow DSCFM
1	-	-	-	-	995.53	-	642,941
2	-	-	-	-	985.56	-	652,324
3	-	-	-	-	978.42	-	631,745
4	-	-	-	-	899.58	-	623,188
5	-	-	-	-	867.53	-	625,367
6	-	-	-	-	837.47	-	633,954
7	-	-	-	-	843.99	-	629,515
8	-	-	-	-	855.59	-	636,072
9	-	-	-	-	807.91	-	632,043
10	-	-	-	-	760.57	-	619,433

Primary Energy
Cokenergy Facility
HRCC Stack 201

Initial Calibration / Response Time

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry	
9/12/2018 6:01	0.50	0.03	0.03	
9/12/2018 6:02	0.50	0.03	0.03	**Local Calibrations**
9/12/2018 6:03	0.50	0.03	0.03	
9/12/2018 6:04	0.50	0.29	0.06	
9/12/2018 6:05	64.21	7.24	0.07	
9/12/2018 6:06	376.27	9.11	0.03	
9/12/2018 6:07	433.13	9.12	0.03	
9/12/2018 6:08	442.89	9.13	0.03	
9/12/2018 6:09	445.74	9.14	0.03	
9/12/2018 6:10	446.93	9.15	0.03	
9/12/2018 6:11	447.85	9.15	0.03	
9/12/2018 6:12	453.35	9.15	0.03	
9/12/2018 6:13	455.97	9.15	0.03	
9/12/2018 6:14	456.51	9.15	0.03	
9/12/2018 6:15	456.77	9.14	0.03	
9/12/2018 6:16	291.79	8.95	0.07	
9/12/2018 6:17	202.31	9.13	0.03	
9/12/2018 6:18	203.24	9.13	0.02	
9/12/2018 6:19	202.99	9.13	0.02	
9/12/2018 6:20	141.18	13.53	12.09	
9/12/2018 6:21	1.58	18.00	22.05	
9/12/2018 6:22	1.00	17.86	22.07	
9/12/2018 6:23	1.00	17.85	22.08	
9/12/2018 6:24	0.63	12.58	15.46	
9/12/2018 6:25	0.50	8.83	10.08	
9/12/2018 6:26	0.50	8.84	10.08	
9/12/2018 6:27	0.50	8.85	10.08	
9/12/2018 6:28	1.00	4.18	15.80	
9/12/2018 6:29	62.05	4.24	14.08	
9/12/2018 6:30	145.55	5.06	12.73	
9/12/2018 6:31	146.74	5.06	12.72	
9/12/2018 6:32	143.71	5.06	12.72	
9/12/2018 6:33	139.46	5.08	12.69	
9/12/2018 6:34	140.75	5.05	12.74	
9/12/2018 6:35	141.90	5.08	12.70	
9/12/2018 6:36	141.67	5.07	12.71	
9/12/2018 6:37	143.86	5.05	12.73	
9/12/2018 6:38	142.88	5.08	12.68	
9/12/2018 6:39	142.63	5.05	12.73	
9/12/2018 6:40	143.71	5.07	12.70	
9/12/2018 6:41	131.04	3.32	8.19	
9/12/2018 6:42	22.97	0.07	0.08	**Remote Calibrations**
9/12/2018 6:43	6.83	0.05	0.05	
9/12/2018 6:44	3.96	0.05	0.05	
9/12/2018 6:45	2.96	0.05	0.05	
9/12/2018 6:46	2.29	0.05	0.05	

Primary Energy
Cokenergy Facility
HRCC Stack 201

Initial Calibration / Response Time

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry	
9/12/2018 6:47	9.73	3.32	0.04	**SO2 Upscale**
9/12/2018 6:48	168.58	8.88	0.03	
9/12/2018 6:49	191.29	8.90	0.03	
9/12/2018 6:50	195.01	8.92	0.03	
9/12/2018 6:51	197.26	8.93	0.03	
9/12/2018 6:52	185.51	6.16	0.03	**SO2 Downscale**
9/12/2018 6:53	36.10	0.10	0.05	
9/12/2018 6:54	8.76	0.07	0.05	
9/12/2018 6:55	5.19	0.05	0.05	
9/12/2018 6:56	3.58	0.05	0.05	
9/12/2018 6:57	2.75	0.05	0.05	
9/12/2018 6:58	2.19	2.95	3.38	**CO2 / O2 Upscale**
9/12/2018 6:59	1.69	8.72	9.96	
9/12/2018 7:00	1.50	8.75	9.98	
9/12/2018 7:01	1.50	8.76	9.99	
9/12/2018 7:02	1.50	5.90	6.78	**CO2 / O2 Downscale**
9/12/2018 7:03	1.58	0.09	0.07	
9/12/2018 7:04	1.42	0.07	0.05	
9/12/2018 7:05	1.08	0.05	0.05	

Primary Energy
Cokenergy Facility
HRCC Stack 201

Post Calibration Run 1

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 7:40	3.50	0.05	0.05
9/12/2018 7:41	58.54	6.76	0.03
9/12/2018 7:42	185.22	8.88	0.03
9/12/2018 7:43	194.56	8.90	0.03
9/12/2018 7:44	196.64	8.90	0.03
9/12/2018 7:45	124.74	8.78	7.15
9/12/2018 7:46	13.42	8.76	9.98
9/12/2018 7:47	5.92	8.77	9.99
9/12/2018 7:48	4.00	8.77	10.00

Post Calibration Run 2

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 8:24	4.74	0.05	0.05
9/12/2018 8:25	54.09	6.24	0.03
9/12/2018 8:26	185.65	8.87	0.03
9/12/2018 8:27	195.41	8.89	0.03
9/12/2018 8:28	196.89	8.90	0.03
9/12/2018 8:29	127.06	8.79	6.92
9/12/2018 8:30	13.54	8.77	9.98
9/12/2018 8:31	6.21	8.77	10.00

Post Calibration Run 3

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 9:05	3.50	0.05	0.05
9/12/2018 9:06	53.89	6.15	0.03
9/12/2018 9:07	183.74	8.88	0.03
9/12/2018 9:08	195.76	8.90	0.03
9/12/2018 9:09	197.72	8.91	0.03
9/12/2018 9:10	125.31	8.80	7.04
9/12/2018 9:11	13.00	8.78	9.98
9/12/2018 9:12	6.04	8.78	10.00

Post Calibration Run 4

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 9:45	3.42	0.05	0.05
9/12/2018 9:46	25.05	4.58	0.04
9/12/2018 9:47	173.09	8.86	0.03
9/12/2018 9:48	193.94	8.89	0.03
9/12/2018 9:49	196.33	8.90	0.03
9/12/2018 9:50	198.01	8.91	0.03
9/12/2018 9:51	123.73	8.78	7.42
9/12/2018 9:52	13.34	8.77	9.98

Primary Energy
Cokenergy Facility
HRCC Stack 201

Post Calibration Run 5

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 10:29	4.42	0.05	0.05
9/12/2018 10:30	14.51	3.43	0.04
9/12/2018 10:31	162.16	8.85	0.03
9/12/2018 10:32	194.14	8.89	0.03
9/12/2018 10:33	196.31	8.90	0.03
9/12/2018 10:34	197.84	8.90	0.03
9/12/2018 10:35	137.85	8.80	6.44
9/12/2018 10:36	15.59	8.76	9.98
9/12/2018 10:37	6.73	8.76	9.98

Post Calibration Run 6

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 11:12	2.69	0.05	0.05
9/12/2018 11:13	19.35	4.20	0.04
9/12/2018 11:14	167.86	8.85	0.03
9/12/2018 11:15	193.81	8.88	0.03
9/12/2018 11:16	196.75	8.89	0.03
9/12/2018 11:17	128.08	8.78	7.30
9/12/2018 11:18	14.42	8.75	9.98
9/12/2018 11:19	6.50	8.76	9.98

Post Calibration Run 7

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 11:50	3.42	0.05	0.05
9/12/2018 11:51	68.30	6.41	0.03
9/12/2018 11:52	188.05	8.88	0.03
9/12/2018 11:53	195.10	8.90	0.03
9/12/2018 11:54	197.60	8.90	0.03
9/12/2018 11:55	149.79	8.81	5.21
9/12/2018 11:56	15.29	8.76	9.97
9/12/2018 11:57	6.39	8.76	9.98

Post Calibration Run 8

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 12:30	3.33	0.05	0.05
9/12/2018 12:31	65.89	6.40	0.03
9/12/2018 12:32	187.64	8.85	0.03
9/12/2018 12:33	194.95	8.88	0.03
9/12/2018 12:34	197.22	8.88	0.03
9/12/2018 12:35	132.72	8.78	6.97
9/12/2018 12:36	15.93	8.75	9.96
9/12/2018 12:37	6.33	8.75	9.98

Primary Energy
Cokenergy Facility
HRCC Stack 201

Post Calibration Run 9

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 13:10	3.21	0.05	0.05
9/12/2018 13:11	60.85	6.39	0.03
9/12/2018 13:12	186.97	8.86	0.03
9/12/2018 13:13	195.52	8.88	0.03
9/12/2018 13:14	197.39	8.88	0.03
9/12/2018 13:15	125.13	8.78	7.06
9/12/2018 13:16	11.84	8.75	9.97
9/12/2018 13:17	5.23	8.75	9.98

Post Calibration Run 10

Date / Time	SO2 ppmvd	CO2 %dry	O2 %dry
9/12/2018 13:51	2.25	0.05	0.05
9/12/2018 13:52	45.49	5.20	0.03
9/12/2018 13:53	185.64	8.84	0.03
9/12/2018 13:54	194.45	8.87	0.03
9/12/2018 13:55	196.06	8.88	0.03
9/12/2018 13:56	119.00	8.75	7.48
9/12/2018 13:57	13.00	8.73	9.97
9/12/2018 13:58	5.17	8.73	9.98

TRC

Response Time Verification

Project Number:	305091	Test Date:	9/12/2018
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRCC	Recorded By:	Gavin Lewis
Sample Location:	Stack 201		

Upscale Response Check							
Pollutant	Cal Gas Level	Cal Gas Conc.	Start Time	Stable Response	Upscale Target Response	Time at Target	Response Time
NO_X	-	-	-	-	-	-	-
SO_2	Mid	201.80	6:47:00	197.26	187.40	6:49:00	0:02:00
CO	-	-	-	-	-	-	-
CO_2	Mid	8.80	6:58:00	8.75	8.31	6:59:00	0:01:00
O_2	Mid	9.98	6:58:00	9.98	9.48	6:59:00	0:01:00

Target Response is 95% of the Pre 1 System Response from the Upscale Bias Test

Start time is the time at which gas is introduced upstream of the probe.

Time at target is the time at which the required target response is achieved.

Response time is the difference between the two.

Downscale Response Check						
Pollutant	Cal Gas Level	Cal Gas Conc.	Start Time	Downscale Target Response	Time at Target	Response Time
NO_X	-	-	-	-	-	-
SO_2	Mid	201.80	6:52:00	10.09	6:54:00	0:02:00
CO	-	-	-	-	-	-
CO_2	Mid	8.80	7:02:00	0.44	7:03:00	0:01:00
O_2	Mid	9.98	7:02:00	0.50	7:03:00	0:01:00

Target Response is 0.5 ppm or 5.0 percent of the upscale gas concentration (whichever is less restrictive)

System Response Times	
Pollutant	**Response Time**
NO_X	**0:00:00**
SO_2	**0:02:00**
CO	**0:00:00**
CO_2	**0:01:00**
O_2	**0:01:00**

System response is the longer of the responses to zero and upscale gas.

ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____6C______ Analyzer Type: _______SO_2_____

Analyzer Manufacturer: _____TECO______ Model Number: ______43C_______

Date of Test: ______2/23/2007_______________

Test No.	Time	SO_2 ppm (wet)		Percent Difference
		Method 6C	Method 6	
1	1713-1743	92.73	92.02	0.77
2	1752-1822	214.16	209.55	2.20
3	1919-1949	734.74	735.69	-0.13
			Total Percent Difference	2.84

Total percent difference allowable is ≤ 7%.

Detailed interference response test data is maintained on file and is available upon request.

ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: ______3A______ Analyzer Type: ________CO_2______

Analyzer Manufacturer: ___Servomex_____ Model Number: ______1440______

Analyzer Span: ______0-20%______

Test Performed by: ____D. Grabowski____ Date: ______1/23/1998_________

Interference Gas	Interference Gas Concentration	Affect of Interference Gas on Analyzer: Analyzer Response, ppm	Affect of Interference Gas on Analyzer: Percent of Span
NO_x	498.0 ppm	-0.02	-0.10
SO_2	208.9 ppm	-0.02	-0.10
CO	450.7 ppm	-0.02	-0.10
CO_2	10.06%	--	--
O_2	22.5%	-0.02	-0.10
	Total Response (sum)	-0.04	-0.40

Total affect on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____3A_____ Analyzer Type: _______O_2______

Analyzer Manufacturer: _____Servomex__ Model Number: ______1440______

Analyzer Span: _____0-25%_____

Test Performed by: _____D. Grabowski____ Date: _______1/23/1998_______

Interference Gas	Interference Gas Concentration	Affect of Interference Gas on Analyzer	
		Analyzer Response, ppm	Percent of Span
NO_x	498.0 ppm	0.02	0.08
SO_2	208.9 ppm	0.02	0.08
CO	450.7 ppm	0.00	0.00
CO_2	10.06%	0.00	0.00
O_2	22.5%	--	--
	Total Response (sum)	0.04	0.16

Total affect on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

Airgas
an Air Liquide company

Airgas USA, LLC
1601 Nicholas Blvd
Elk Grove, IL 60007
Airgas.com

CERTIFICATE OF BATCH ANALYSIS

Grade of Product: CEM-CAL ZERO

Part Number:	NI CZ15A	Reference Number:	136-401112246-1
Cylinder Analyzed:	CC119441	Cylinder Volume:	142.0 CF
Laboratory:	192 - Elk Grove (SAP) - IL	Cylinder Pressure:	2000 PSIG
Analysis Date:	Jan 24, 2018	Valve Outlet:	580
Lot Number:	136-401112246-1		

Expiration Date: Jan 24, 2026

EB0041701

ANALYTICAL RESULTS

Component		Requested Purity		Certified Concentration
NITROGEN		99.9995 %		99.9995 %
CARBON DIOXIDE	<	1.0 PPM	<LDL	0.12 PPM
NOx	<	0.1 PPM	<	0.1 PPM
SO2	<	0.1 PPM	<	0.1 PPM
THC	<	0.1 PPM	<LDL	0.04 PPM
CARBON MONOXIDE	<	0.5 PPM	<LDL	0.12 PPM

Permanent Notes: Airgas certifies that the contents of this cylinder meet the requirements of 40 CFR 72.2

Cylinders in Batch:

CC119441, CC128062, CC14648, CC214337, CC222236, CC346464, CC401454, CC450417, CC462173, EB0033993, EB0034727, EB0039072, EB0039355, EB0039363, EB0039426, EB0039718, EB0040297, EB0040334, EB0041697, EB0041701

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

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Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E05NI90E15A8N35	Reference Number:	54-124622327-1
Cylinder Number:	SG9135799BAL	Cylinder Volume:	149.3 CF
Laboratory:	124 - Chicago - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12017	Valve Outlet:	660
Gas Code:	CO,CO2,NO,NOX,SO2,BALN	Certification Date:	Jun 13, 2017

Expiration Date: Jun 13, 2025

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	200.0 PPM	197.7 PPM	G1	+/- 0.7% NIST Traceable	06/05/2017, 06/13/2017
CARBON MONOXIDE	200.0 PPM	193.9 PPM	G1	+/- 1.0% NIST Traceable	06/06/2017
NITRIC OXIDE	200.0 PPM	197.7 PPM	G1	+/- 0.7% NIST Traceable	06/05/2017, 06/13/2017
SULFUR DIOXIDE	200.0 PPM	201.8 PPM	G1	+/- 0.8% NIST Traceable	06/05/2017, 06/13/2017
CARBON DIOXIDE	9.000 %	8.946 %	G1	+/- 0.8% NIST Traceable	06/05/2017
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	14060114	CC432959	990.9 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Nov 18, 2019
PRM	12312	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Oct 15, 2014
NTRM	15060334	CC448443	241 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	Mar 30, 2021
NTRM	15060315	CC448252	241.0 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	Mar 30, 2021
GMIS	812201405	CC502159	4.861 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 12, 2017
NTRM	15060618	CC450443	248.1 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.6%	Dec 17, 2020
NTRM	12061356	CC361031	11.002 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Jan 11, 2018

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900100	FTIR	May 22, 2017
CO-1 HORIBA VIA-510 TKPPF7FG	NDIR	May 16, 2017
Nicolet 6700 AMP0900100	FTIR	May 22, 2017
Nicolet 6700 AMP0900100	FTIR	May 22, 2017
Nicolet 6700 AMP0900100	FTIR	May 22, 2017

Triad Data Available Upon Request

Approved for Release

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E05NI90E15A7762	Reference Number:	54-401083591-1
Cylinder Number:	SG9151303BAL	Cylinder Volume:	149.3 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12018	Valve Outlet:	660
Gas Code:	CO,CO2,NO,NOX,SO2,BALN	Certification Date:	Jan 03, 2018

Expiration Date: Jan 03, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	450.0 PPM	460.5 PPM	G1	+/- 0.7% NIST Traceable	12/22/2017, 01/03/2018
CARBON MONOXIDE	450.0 PPM	444.9 PPM	G1	+/- 0.9% NIST Traceable	12/27/2017
NITRIC OXIDE	450.0 PPM	460.5 PPM	G1	+/- 0.7% NIST Traceable	12/22/2017, 01/03/2018
SULFUR DIOXIDE	450.0 PPM	452.6 PPM	G1	+/- 1.0% NIST Traceable	12/22/2017, 01/03/2018
CARBON DIOXIDE	9.000 %	8.985 %	G1	+/- 1.0% NIST Traceable	12/22/2017
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	14060114	CC432959	990.9 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Nov 18, 2019
PRM	12367	APEX1099237	10.0 PPM NITROGEN DIOXIDE/AIR	+/- 1.5%	Jun 02, 2017
NTRM	15060416	CC449822	496.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2021
GMIS	1114201605	CC506716	4.995 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Nov 14, 2019
NTRM	16060130	CC437452	515.2 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.8%	Nov 16, 2021
NTRM	13060614	CC413600	13.359 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	May 19, 2019

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AMP0900100	FTIR	Dec 21, 2017
CO-1 SIEMENS ULTRAMAT 6E N1J5700	NDIR	Dec 13, 2017
Nicolet 6700 AMP0900100	FTIR	Dec 21, 2017
Nicolet 6700 AMP0900100	FTIR	Dec 21, 2017
Nicolet 6700 AMP0900100	FTIR	Dec 21, 2017

Triad Data Available Upon Request

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Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
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Airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI81E15A37P2	Reference Number:	54-401204617-1
Cylinder Number:	CC473136	Cylinder Volume:	150.3 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12018	Valve Outlet:	590
Gas Code:	CO2,O2,BALN	Certification Date:	May 17, 2018

Expiration Date: May 17, 2026

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON DIOXIDE	9.000 %	8.798 %	G1	+/- 0.8% NIST Traceable	05/17/2018
OXYGEN	10.00 %	9.976 %	G1	+/- 1.0% NIST Traceable	05/17/2018
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13060613	CC413592	13.359 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	May 09, 2019
NTRM	09061430	CC282477	22.53 % OXYGEN/NITROGEN	+/- 0.4%	Mar 08, 2019

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
CO2-1 HORIBA VIA-510 V1E3H7P5	NDIR	Apr 24, 2018
O2-1 HORIBA MPA-510 3VUYL9NR	Paramagnetic	Apr 20, 2018

Triad Data Available Upon Request

Approved for Release

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI60E15A1069	Reference Number:	54-124493649-4
Cylinder Number:	CC19838	Cylinder Volume:	158.2 CF
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12015	Valve Outlet:	590
Gas Code:	CO_2,O_2,BALN	Certification Date:	May 15, 2015

Expiration Date: May 15, 2023

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON DIOXIDE	18.00 %	17.86 %	G1	+/- 1.1% NIST Traceable	05/15/2015
OXYGEN	22.00 %	22.01 %	G1	+/- 1.0% NIST Traceable	05/15/2015
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	06120402	CC184369	19.66 % CARBON DIOXIDE/NITROGEN	+/- 0.5%	May 01, 2016
NTRM	06120204	CC195893	20.90 % OXYGEN/NITROGEN	+/- 0.4%	Dec 01, 2015

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
CO2-1 HORIBA VIA-510 V1E3H7P5	NDIR	May 13, 2015
O2-1 HORIBA MPA-510 3VUYL9NR	Paramagnetic	May 11, 2015

Triad Data Available Upon Request

Signature on file

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TRC

Method 2 Velocity Traverse Data

Project No:	305091	Test Date(s):	9-12-18	Duct Dimensions:	
Company:	PRIMARY ENERGY	Operating Level:		Duct Area (ft²):	254.469
Plant:	EAST CHICAGO	Recorded by:	RJ	% CO_2:	(1) 5.2 (2) 5.1 (3) 5.1
Unit ID:	~~BOILER~~ HRCC	Pitot ID:	888	% O_2:	(1) 12.6 (2) 12.7 (3) 12.8
Sample Location:	STACK 201	Pitot Coefficient Cp:	.840		

Run No: 1 Time: 715 - 725 — P_{bar} ("Hg): 29.26 Static ("H_2O): -1

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.1	285	
2	1.1	287	
3	1.1	287	
4	1.0	286	
2-1	1.0	287	
2	.98	287	
3	1.0	287	
4	.95	286	
3-1	1.1	287	
2	.97	286	
3	.97	286	
4	.95	286	
4-1	1.2	287	
2	1.2	287	
3	1.2	287	
4	1.1	287	
Avg.			

Leak Check Pre: ✓ Post: ✓

Run No: 2 Time: 800 - 808 — P_{bar} ("Hg): 29.28 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.2	284	
2	1.2	284	
3	1.2	284	
4	1.2	283	
2-1	1.1	285	
2	1.1	285	
3	1.1	284	
4	.95	284	
3-1	1.0	284	
2	1.2	284	
3	1.0	283	
4	.84	283	
4-1	1.2	284	
2	1.1	284	
3	1.1	284	
4	1.1	284	
Avg.			

Leak Check Pre: ✓ Post: ✓

Run No: 3 Time: 840 - 849 — P_{bar} ("Hg): 29.28 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.0	285	
2	1.1	285	
3	1.1	285	
4	.95	285	
2-1	.98	285	
2	.97	285	
3	1.0	285	
4	.90	285	
3-1	1.1	285	
2	1.0	285	
3	1.0	284	
4	.88	284	
4-1	1.1	285	
2	1.1	284	
3	1.2	284	
4	.97	284	
Avg.			

Leak Check Pre: ✓ Post: ✓

Moisture Test Data

Time	Meter Vol (ft³) *or* (L)	ΔH ("H_2O)	Meter Temp. (°F)		Vacuum ("Hg)	Outlet Temp (°F)
Net						
Avg.						

Meter ID: Y=

ΔH@I:

Train Weight		
Initial		g
Final		g
Gain		g

Moisture Leak Check			
Pre		@	"Hg
Post		@	"Hg

Field Balance ID:

Standard Weight ID:

(g)

Nominal:

Measured

Comments:

TRC

Method 2 Velocity Traverse Data

Project No:	305091	Test Date(s):	9-12-18	Duct Dimensions:	
Company:	PRIMARY ENERGY	Operating Level:		Duct Area (ft²):	254.469
Plant:	EAST CHICAGO	Recorded by:	RW	% CO_2:	(4) 5.0 (5) 5.0 (6) 4.9
Unit ID:	HRCC	Pitot ID:	888	% O_2:	(4) 13.0 (5) 13.0 (6) 13.1
Sample Location:	STACK 201	Pitot Coefficient Cp:	.840		

Run No: 4 Time: 920 - 928
P_{bar} ("Hg): 29.28 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.0	285	
2	1.0	284	
3	1.1	284	
4	.97	284	
2-1	.94	285	
2	1.0	285	
3	1.0	284	
4	.84	284	
3-1	1.0	285	
2	.98	288	
3	.93	285	
4	.84	285	
4-1	1.1	284	
2	1.1	285	
3	1.1	285	
4	.90	285	
Avg.		✓	✓

Leak Check Pre: ✓ Post: ✓

Run No: 5 Time: 1000 - 1010
P_{bar} ("Hg): 29.28 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.1	286	
2	1.1	286	
3	1.1	286	
4	.95	286	
2-1	1.0	286	
2	1.0	286	
3	1.0	285	
4	.85	285	
3-1	1.0	285	
2	1.0	285	
3	1.0	285	
4	.90	285	
4-1	1.0	286	
2	1.1	286	
3	1.0	286	
4	.92	286	
Avg.		✓	✓

Leak Check Pre: ✓ Post: ✓

Run No: 6 Time: 1045 - 1054
P_{bar} ("Hg): 29.31 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.0	286	
2	1.0	286	
3	1.1	286	
4	1.0	286	
2-1	.95	285	
2	.98	285	
3	1.1	286	
4	.95	286	
3-1	.95	286	
2	1.0	286	
3	1.1	286	
4	.89	286	
4-1	1.1	285	
2	1.1	285	
3	1.1	285	
4	.97	285	
Avg.		✓	✓

Leak Check Pre: ✓ Post: ✓

Moisture Test Data

Time	Meter Vol (ft³) *or* (L)	ΔH ("H_2O)	Meter Temp. (°F)		Vacuum ("Hg)	Outlet Temp (°F)
Net						
Avg.						

Meter ID: Y=
ΔH@I:

Train Weight		
Initial		g
Final		g
Gain		g

Moisture Leak Check			
Pre		@	"Hg
Post		@	"Hg

Field Balance ID:

Standard Weight ID:

(g)
Nominal:
Measured

Comments:

AM-EMT-05 Rev. 6.2
Revised 08/02/17

TRC

Method 2 Velocity Traverse Data

Project No:	305091	Test Date(s):	9-12-18	Duct Dimensions:	
Company:	PRIMARY ENERGY	Operating Level:		Duct Area (ft²):	254.469
Plant:	EAST CHICAGO	Recorded by:	RN	% CO_2:	(7) 4.9 (8) 4.8 (9) 4.7
Unit ID:	HRCC	Pitot ID:	888	% O_2:	(7) 13.2 (8) 13.4 (9) 13.5
Sample Location:	STACK 201	Pitot Coefficient Cp:	.840		

Run No: 7 Time: 1125 - 1133
P_{bar} ("Hg): 29.25 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.0	287	
2	1.0	287	
3	1.1	287	
4	.98	287	
2-1	1.0	287	
2	1.0	287	
3	1.0	287	
4	.90	287	
3-1	1.0	287	
2	.98	287	
3	.98	286	
4	.83	286	
4-1	1.1	286	
2	1.2	286	
3	1.2	286	
4	.88	286	
Avg.			

Leak Check Pre: ✓ Post: ✓

Run No: 8 Time: 1205 - 1213
P_{bar} ("Hg): 29.28 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.1	286	
2	1.1	286	
3	1.1	286	
4	.95	286	
2-1	.97	286	
2	.98	286	
3	.87	286	
4	.84	286	
3-1	1.1	286	
2	1.0	286	
3	1.0	285	
4	.93	285	
4-1	1.1	285	
2	1.1	286	
3	1.1	286	
4	1.0	286	
Avg.			

Leak Check Pre: ✓ Post: ✓

Run No: 9 Time: 1245 - 1253
P_{bar} ("Hg): 29.26 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.1	286	
2	1.1	286	
3	1.1	286	
4	.97	285	
2-1	1.0	285	
2	1.0	285	
3	.97	286	
4	.88	285	
3-1	.97	286	
2	.97	286	
3	1.0	285	
4	.92	285	
4-1	1.0	286	
2	1.1	286	
3	1.2	286	
4	.97	286	
Avg.			

Leak Check Pre: ✓ Post: ✓

Moisture Test Data

Time	Meter Vol (ft³) *or* (L)	ΔH ("H_2O)	Meter Temp. (°F)		Vacuum ("Hg)	Outlet Temp (°F)
Net						
Avg.						

Meter ID: Y=
ΔH@I:

Train Weight		
Initial		g
Final		g
Gain		g

Moisture Leak Check			
Pre		@	"Hg
Post		@	"Hg

Field Balance ID:

Standard Weight ID:

(g)
Nominal:
Measured

Comments:

TRC

Method 2 Velocity Traverse Data

Project No:	305091	Test Date(s):	9-12-18	Duct Dimensions:	
Company:	PRIMARY ENERGY	Operating Level:		Duct Area (ft^2):	254.469
Plant:	EAST CHICAGO	Recorded by:	RW	% CO_2:	4.7
Unit ID:	HRCC	Pitot ID:	888	% O_2:	13.5
Sample Location:	STACK 201	Pitot Coefficient Cp:	.840		

Run No: 10 Time: 1305 - 1333

P_{bar} ("Hg): 29.26 Static ("H_2O): -1.0

Port-Point	Δp "H_2O	T_s (°F)	a
1-1	1.0	287	
2	1.6	287	
3	1.0	287	
4	.95	287	
2-1	.98	287	
2	.94	287	
3	.98	287	
4	.85	287	
3-1	.95	287	
2	.98	287	
3	.98	287	
4	.82	287	
4-1	1.1	287	
2	1.1	287	
3	1.2	287	
4	.96	287	
Avg.			

Leak Check Pre: ✓ Post: ✓

Run No: ____ Time: ____ - ____

P_{bar} ("Hg): ____ Static ("H_2O): ____

Port-Point	Δp "H_2O	T_s (°F)	a
Avg.			

Leak Check Pre: ____ Post: ____

Run No: ____ Time: ____ - ____

P_{bar} ("Hg): ____ Static ("H_2O): ____

Port-Point	Δp "H_2O	T_s (°F)	a
Avg.			

Leak Check Pre: ____ Post: ____

Moisture Test Data

Time	Meter Vol (ft^3) or (L)	ΔH ("H_2O)	Meter Temp. (°F)		Vacuum ("Hg)	Outlet Temp (°F)
Net						
Avg.						

Meter ID: Y=

ΔH@I:

Train Weight		
Initial		g
Final		g
Gain		g

Moisture Leak Check			
Pre		@	"Hg
Post		@	"Hg

Field Balance ID:

Standard Weight ID:

(g)

Nominal:

Measured

Comments:

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY — Project #: 305091 — Console Operator: RN

Plant: EAST CHICAGO — Test Method: 4 — Console ID: E44

Unit ID: ~~BOILER~~ HR<< — Test Run #: 1 — Meter Y: .997

Location: STACK 201 — Test Date(s): 9-12-18 — Orifice ΔH@i: 1.676

Unit Operating Mode: — — Barometric Pressure ("Hg): 29.26 — Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 12

Post Leak Check: 0 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	715	279.0	2.0	70	70	1	59	286
	720	282.76	2.0	72	70	1	60	286
	725	286.56	2.0	78	70	1	60	286
	730	290.34	2.0	71	70	1	61	286
	735	294.07	2.0	72	71	1	61	286
	740	297.77	2.0	72	71	1	62	286
	745	301.456						
	Net Volume:							
	Average:							

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3108.3	3182.6
		Net: 74.3

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

AM-EMT-59 Rev. 8 2/9/2015

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: HRCC
Location: STACK 201
Unit Operating Mode: —

Project #: 305091
Test Method: 4
Test Run #: 2
Test Date(s): 9-12-18
Barometric Pressure ("Hg): 29.28

Console Operator: RN
Console ID: E44
Meter Y : .997
Orifice ΔH@i: 1.676
Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 10
Post Leak Check: 0 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	800	301.80	2.0	72	72	2	58	285
	805	305.59	2.0	75	73	2	58	285
	810	309.40	2.0	76	74	2	59	285
	815	313.14	2.0	77	75	2	60	285
	820	316.88	2.0	77	75	2	60	285
	825	320.60	2.0	78	75	2	61	285
	830	324.31						
	Net Volume:							
		Average:						

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3336.7	~~3145.7~~
		3415.2
		Net: 78.5

10/3/18 KEM

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Project #: 305091
Console Operator: RN
Plant: East Chicago
Test Method: 4
Console ID: E44
Unit ID: HRCC
Test Run #: 3
Meter Y: .997
Location: Stack 201
Test Date(s): 9-12-18
Orifice ΔH@i: 1.676
Unit Operating Mode: —
Barometric Pressure ("Hg): 29.28
Static Pressure ("H_2O): -1.0
Pre Leak Check: 0 @ 12
Post Leak Check: 0 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	840	324.56	2.0	80	78	1	60	285
	845	328.31	2.0	80	78	1	60	285
	850	332.08	2.0	81	78	1	62	285
	855	335.89	2.0	82	78	1	62	285
	900	339.60	2.0	84	79	1	63	285
	905	343.34	2.0	84	79	1	63	285
	910	347.041						
Net Volume:								
Average:								

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3181.5	3256.3
		Net: 74.8

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: ~~305091~~ PRIMARY ENERGY RN
Project #: 305091
Console Operator: RN

Plant: ~~PRIMARY ENERGY~~ EAST CHICAGO RN
Test Method: 4
Console ID: E44

Unit ID: ~~EAST~~ HRCC
Test Run #: 4
Meter Y: .997

Location: STACK #1
Test Date(s): 9-12-18
Orifice ΔH@i: 1.676

Unit Operating Mode: —
Barometric Pressure ("Hg): 29.28
Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 12
Post Leak Check: 0 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	920	347.3	2.0	81	80	2	61	285
	925	351.15	2.0	83	80	2	61	
	930	355.03	2.0	83	80	2	62	
	935	358.59	2.0	83	81	2	62	
	940	360.76	2.0	84	81	2	63	
	945	366.60	2.0	84	81	2	63	
	950	370.431						
Net Volume:								
Average:								

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3395.4	3469.7
		Net: 74.3

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)

	O_2	CO_2
Average:		

Comments:

*Required for ALT-009 Meter Calibration Checks

3136.5

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: HRCC
Location: STACK 201
Unit Operating Mode: —

Project #: 305091
Test Method: 4
Test Run #: 5
Test Date(s): 9-12-18
Barometric Pressure ("Hg): 29.28

Console Operator: RN
Console ID: E44
Meter Y: .997
Orifice ΔH@i: 1.676
Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 13
Post Leak Check: 0 @ 13

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	1000	370.70	2.0	83	81	2	59	286
	1005	374.50	2.0	83	81	2	60	↓
	1010	378.29	2.0	84	81	2	60	
	1015	382.06	2.0	82	80	2	61	
	1020	385.88	2.0	82	80	2	61	
	1025	388.60	2.0	81	80	2	62	
	1030	393.341						

Net Volume:
Average:

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3136.5	3211.2

Net: 74.7

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: HRCC
Location: STACK 201
Unit Operating Mode: ——

Project #: 305091
Test Method: 4
Test Run #: 6
Test Date(s): 9-12-18
Barometric Pressure ("Hg): 29.37

Console Operator: RN
Console ID: E44
Meter Y: .997
Orifice ΔH@i: 1.676
Static Pressure ("H_2O): -1.0
Pre Leak Check: 0 @ 10
Post Leak Check: 0 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	~~1045~~ 1045 ~~393.50~~	393.50	2.0	80	79	2	60	287
	1050	397.39	2.0	81	80	2	66	
	1055	401.20	2.0	82	80	2	61	
	1100	405.09	2.0	82	79	2	62	
	1105	409.00	2.0	82	79	2	62	
	1110	412.9	2.0	82	79	2	63	
	1115	416.705						
Net Volume:								
Average:								

Moisture Data		
Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3384.5	3458.3
	Net:	73.8

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: NRCC
Location: STACK 201

Project #: 305091
Test Method: 4
Test Run #: 7
Test Date(s): 9-12-18

Console Operator: RN
Console ID: E44
Meter Y: .997
Orifice ΔH@i: 1.676

Unit Operating Mode:

Barometric Pressure ("Hg): 29.25

Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 10

Post Leak Check: 0 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	1130	416.848	2	79	78	2	61	287
	1135	420.65	2	80	78	2	61	
	1140	424.44	2	81	75	2	62	
	1145	428.32	2	82	78	2	62	
	1150	432.18	2	82	79	2	63	
	1155	435.93	2	82	79	2	63	
	1200	439.741						
Net Volume:								
Average:								

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3080.8	3156.3
		Net: 75.5

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)

	O_2	CO_2
Average:		

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: NRCC
Location: STACK 201
Unit Operating Mode:

Project #: 305091
Test Method: 4
Test Run #: 8
Test Date(s): 9-12-18
Barometric Pressure ("Hg): 29.28

Console Operator: RN
Console ID: E44
Meter Y : .997
Orifice ΔH@i: 1.676
Static Pressure ("H_2O): -1.0
Pre Leak Check: 0 @ 10
Post Leak Check: 0 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Pressure ("H_2O)	Inlet (°F)	Outlet (°F)	Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
L-1	1205	439.81	2.0	81	81	2	58	286
	1210	443.60	2.0	82	81	2	58	
	1215	447.37	2.0	83	81	2	59	
	1220	451.13	2.0	85	82	2	59	
	1225	454.90	2.0	85	82	2	60	
	1230	458.70	2.0	86	82	2	60	
	1235	462.450						
Net Volume:								
Average:								

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3377.2	3447.1
		Net: 69.9

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)

	O_2	CO_2
Average:		

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: HRCC
Location: STACK 201
Unit Operating Mode: —

Project #: 305091
Test Method: 4
Test Run #: 9
Test Date(s): 9-12-18

Console Operator: RN
Console ID: E44
Meter Y : .997
Orifice ΔH@i: 1.676

Barometric Pressure ("Hg): 29.26
Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 12
Post Leak Check: 0 @ 12

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	1245	462.50	2.0	85	83	2	61	286
	1250	466.20	2.0	86	83	2	61	↓
	1255	469.80	2.0	86	84	2	62	↓
	1300	473.77	2.0	87	84	2	63	↓
	1305	477.60	2.0	88	85	2	63	↓
	1310	481.46	2.0	88	85	2	64	↓
	1315	485.26F						
Net Volume:								
Average:								

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3156.3	3228.5
		Net: 72.2

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2
Average:	

Comments:

*Required for ALT-009 Meter Calibration Checks

TRC

Moisture Test Run Data

Company: PRIMARY ENERGY
Plant: EAST CHICAGO
Unit ID: HRCC
Location: STACK 201
Unit Operating Mode: —

Project #: 305091
Test Method: 4
Test Run #: 10
Test Date(s): 9-12-18
Barometric Pressure ("Hg): 29.26

Console Operator: RN
Console ID: E44
Meter Y: .997
Orifice ΔH@i: 1.676
Static Pressure ("H_2O): -1.0

Pre Leak Check: 0 @ 10
Post Leak Check: 0 @ 10

Port & Point ID	Clock Time	Dry Gas Meter Volume Liters / Cubic Feet	Dry Gas Meter Pressure ("H_2O)	Dry Gas Meter Inlet (°F)	Dry Gas Meter Outlet (°F)	Dry Gas Meter Vacuum ("Hg)	Impinger Outlet (°F)	Stack (°F)
1-1	1325	485.40	2.0	87	85	2	66	288
	1330	489.44	2.0	89	85	2	60	
	1335	492.25	2.0	89	86	2	61	
	1340	496.13	2.0	91	86	2	61	
	1345	500.0	2.0	92	87	2	62	
	1450	503.85	2.0	92	87	2	62	
	1455	507.71						

Net Volume:
Average:

Moisture Data

Impinger ID	Tare wt. (grams)	Final wt. (grams)
	3447.1	3520.5

Net: 73.4

Pump/Orifice* Leak Check: Pass / Fail / N/A

Gas Analysis (%v/v dry)	
O_2	CO_2

Average:

Comments:

*Required for ALT-009 Meter Calibration Checks

Attachment C

Preventative Maintenance and Operation (PMO) Plan

Indiana Harbor Coke Company, L.P.

PREVENTIVE MAINTENANCE

AND OPERATION PLAN

(PMO Plan)

January 2019

List of Acronyms

CAP	Compliance Assurance Plan
CCR	Central Control Room
C/S	Coke Side
CUI	Corrosion Under Insulation
DCS	Distributed Control System
dP	Differential Pressure
EAM	Enterprise Asset Management
ETS	Emission Tracking Software
H_2O	Water
HRSG	Heat Recovery Steam Generator
IDEM	Indiana Department of Environmental Management
IHCC	Indiana Harbor Coke Company, L.P.
IHCC Air Permit	Title V Permit 089-36826-00382 and its subsequent revisions, renewals, and any modifications
IR	Infrared Thermography
MOC	Management of Change
MWP	Maintenance Work Process
NESHAP	National Emission Standards for Hazardous Air Pollutants
O_2	Oxygen
PCM	Pushing/Charging Machine
PM	Preventive Maintenance
PM Emissions	Particulate Matter emissions
P/S	Push Side
PMO Plan	Preventive Maintenance and Operation Plan
RCFA	Root Cause Failure Analysis
SO_2	Sulfur Dioxide
USEPA	United States Environmental Protection Agency
40 CFR	Title 40 of the Code of Federal Regulations
VM	Volatile Matter

Table of Contents

List of Attachments

I. INTRODUCTION

This document serves as the Preventive Maintenance and Operation Plan (PMO Plan) for Indiana Harbor Coke Company, L.P. (IHCC), which has been prepared to ensure compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) and with Title V Operating Permit No. 089-36826-00382 and its subsequent revisions, renewals, and any modifications (IHCC Air Permit).

The PMO Plan has been developed pursuant to a Consent Decree with the United States and the State of Indiana, which was entered in the United States District Court for the Northern District of Indiana with an Effective Date of 10/25/2018 (Consent Decree).

All employees of IHCC, as well as contractors and subcontractors, shall follow the guidelines detailed in this plan.

II. PURPOSE OF THE PMO PLAN

IHCC's PMO Plan shall have the goal of minimizing Coke Oven Leaks through the proper operation and integrity of the facility's oven maintenance program as well as compliance with limits and requirements established in the Consent Decree. The purposes of the PMO plan are to:

1. Set forth a plan to implement enhanced maintenance and operation of IHCC's Rebuilt Ovens.
2. Provide that IHCC operates and maintains its control systems, affected sources, and monitoring equipment in a manner consistent with safety and with good air pollution control practices and minimization of emissions as required by the Consent Decree and the IHCC Air Permit, and regulations promulgated under the CAA.
3. Provide procedures for maintenance and operation in order to minimize emissions at the facility from Coke Oven Leaks.

IHCC shall comply with the PMO Plan at all times.

III. DEFINITIONS

a) Definitions used in this PMO Plan that are specific to individual steps of coke production:

1. Battery: IHCC has four batteries denoted A, B, C, and D; Each Battery includes multiple banks of 16 or 17 Ovens.
2. Bypass Vent Stack: each vent stack located between the Coke Oven battery common tunnel and each Heat Recovery Steam Generator (HRSG).
3. Bypass Venting: the redirection of a flue gas stream through the Bypass Vent Stacks directly to the atmosphere for any reason. Bypass Venting through a Bypass Vent Stack commences when a Bypass Vent Stack lid opens and continues until the Bypass Vent Stack lid closes.
4. Bypass Venting Incident: all Bypass Venting that results in an exceedance of the Consent Decree's or the IHCC Air Permit's 19% daily bypass venting limit.
5. Bypass Venting Percentage: the venting as tracked through the Emissions Tracking System (ETS), which tracks the percentage of Bypass Venting in daily and 3-hour block averages.
6. Coal Sulfur Content or Sulfur Content: the elemental composition of sulfur in coal by weight as determined by methods approved in the IHCC Air Permit.
7. Coke Oven or Oven: any heat recovery oven at Batteries A, B, C, or D.
8. Coke Oven Door Leak: emissions during a Coking Cycle from a Coke Oven door that do not comply with Title 40 of the Code of Federal Regulations (40 CFR) §63.303(b)(1) or (c)(2).
9. Coke Oven Leak or Leak: any Coke Oven Door Leak or Crown Opacity. Visible emissions that occur during a Lightning Stand-Down shall not be considered a Coke Oven Leak for purposes of the PMO Plan provided the visible emissions do not continue for longer than 15, 30, or 45 minutes, as applicable, after the Lightning Stand-Down is over. The actions required in response to a Coke Oven Leak, per the Consent Decree, begin January 1, 2019 and continue until the Consent Decree is terminated.
10. Coke Oven Leak Root Cause Failure Analysis (RCFA) Trigger Level or RCFA Trigger Level: is either (a) when an oven experiences Coke Oven Leaks in two consecutive Coking Cycles, or (b) when an oven experiences Coke Oven Leaks in four or more Coking Cycles in a calendar month. Leaks that result from operator error (e.g., failure to open dampers, close sole flues when a leak is detected, etc.) shall not count in determining whether the Root Cause Failure Analysis (RCFA) Trigger Level has been reached.
11. Coke Oven Root Cause Failure Analysis or Coke Oven RCFA: an assessment conducted to determine the primary cause and any contributing cause of triggering a Coke Oven Leak RCFA Trigger Level.
12. Coking: the process where coal that has been placed in a Coke Oven undergoes destructive distillation to produce coke.
13. Coking Cycle: the time that begins after the Oven has been charged with coal and both doors have been placed on the Oven and ends when a door is removed.

14. Coking Operations: IHCC's operation of Coke Ovens and other coking equipment.

15. Crown Opacity: emissions during a Coking Cycle from a Coke Oven crown that causes at least 20% opacity for three (3) minutes using USEPA Method 9. IHCC has the option to use USEPA Alternative Method 082 in lieu of USEPA Method 9.

16. Distributed Control System (DCS): a computerized system that provides visibility and control to various measurements and aspects of the IHCC facility.

17. Lightning Stand-Down: when lightning is within a ten (10) mile radius of the Facility as determined by a third-party weather tracking service, and exposed outdoor work must be stopped in accordance with IHCC's severe weather safety policy. A Lightning Stand-Down is over when an "all-clear" announcement is made after a thirty (30) minute period of no strikes within the ten (10) mile clearance radius in accordance with IHCC's severe weather safety policy.

18. Oven Rebuilds: repairing Ovens by removal and replacement of the Oven floor and sole flues and repair of Oven wall cracks.

19. Heat Recovery Steam Generator (HRSG): an energy recovery heat exchanger that recovers heat from a hot gas stream for the purpose of steam generation.

20. Rebuilt Ovens: Ovens that have undergone Oven Rebuilds.

21. Structural Issues: issues involving the Oven structure (cracks or other damage to walls, floors, or flues; problems with Oven sealing; and/or other problems associated with the Oven structure) that cause Coke Oven Leaks.

b) Definitions used in this PMO Plan to describe IHCC's systems and processes:

1. Emission Tracking Software (ETS): the emissions tracking software that is used to track bypass venting (i.e., record the percentage of bypass venting in daily and 3-hour block averages) and main stack emissions and bypass vent stack emissions (SO_2, PM, and lead).

2. Enterprise Asset Management System (EAM): a computerized asset maintenance system that provides asset management, work management, materials management, and purchasing capabilities to help IHCC maximize productivity and extend the life of its assets. IHCC currently uses IBM MAXIMO ("MAXIMO") as the EAM.

3. Maintenance Work Process (MWP): the process used at IHCC to efficiently execute maintenance activities on process equipment and facilities.

IV. PREVENTIVE MAINTENANCE

Preventive Maintenance (PM) is the performance of maintenance tasks that either 1) repair or service emission units in accordance with good engineering and air pollution control practices, 2) extend the life of an asset, or 3) detect a potential for unplanned failure. PM is managed within the Enterprise Asset Management (EAM) system. A PM record is a plan to perform periodic work on an asset or group of assets. The EAM system automatically generates certain PM Work Orders at a predetermined time interval to provide a method in which to execute the work in the field. PM tasks can be categorized as safety or environmental critical, which carry a higher scheduling priority than other PMs within the Maintenance Work Process (MWP).

All PMs are housed in the EAM system as described here. PM records contain the relevant information for conducting the PM and ensuring that the objectives described above are met. This may include, but is not limited to, the following: a job plan, the craft of group assigned to execute the task, the frequency for conducting the PM, a list of specific tasks that should be performed, a list of specific parameters that should be met, a list of equipment or tools necessary to conduct the PM, requirements for data collection or observations, and/or the location of the equipment to be serviced. PMs are updated as equipment or needs change or additional PMs are identified. Since the most current and up to date list of all PMs resides in the EAM system, a list is not included in this PMO Plan. An example list of environmental critical PMs is included as Attachment A – Example List of Environmental Critical PM. The current and up-to-date list of PMs is maintained in the EAM system; this PMO Plan will not be updated to reflect changes to the Environmental Critical PM list.

A completed PM record contains the statement of work (job plan), the name of the person or group who executed the PM task, and the date the PM was performed. Results of PM inspections may be reviewed for technical content and potential follow up actions by the Maintenance Planner. Paper copies of completed environmental critical PM work orders may be routed to the plant Environmental Manager or Environmental Representative for review. The work order closure process flow is included as Attachment B – PM Workflow Process.

V. QUARTERLY INTERNAL AND EXTERNAL OVEN HEALTH INSPECTIONS (CONSENT DECREE IV.D.23.a.i.)

Quarterly internal and external oven health inspections will be conducted by trained inspectors to assess the current state of each oven, following documented oven inspection procedures and recommended repairs. Employee training for the quarterly inspections is described in Section X.

The oven sole flue, oven mechanical, oven chamber, and oven refractory exterior, or crown area, inspections will be conducted, internally, on a quarterly basis following documented procedures, as described in Section V of this Plan and in accordance with checklists included as Attachments C, D, and E. Summary forms are maintained that documents any findings, which also include findings from additional inspections including the Infrared Thermography (IR) Scan, Oven Door Inspections, Damper Block Inspections, and Declinker Inspections. These findings will be reviewed by SunCoke personnel to determine whether action is required for each particular finding or whether a finding will simply continue to be monitored. Personnel designated to monitor and assess oven health will hold regular meetings to discuss changes to oven inspection procedures and scheduling. Any future revisions to the following summarized inspection procedures are documented within their respective revision logs.

General size definitions for various oven conditions identified in oven health inspections are summarized in Table 1. Repairs are also dependent on the location of the erosion and cracks within the coke oven. This table is for example purposes only.

Table 1. Summary of General Oven Condition Erosion/Crack/Blockage Size Definitions

Oven Condition Description	Size Definition	Repairs
· Minimum or Small Erosion/Cracks	· ¼" – ½" wide; no gas flow leaking through crack	· Silica weld the crack
· Moderate Erosion/Cracks	· ½" – 1" wide; small gas flow leaking through crack	· Silica weld the crack
· Severe Erosion/Cracks	· Large enough for material (coal/coke) to pass through crack	· Silica weld the crack to allow for planning of rebricking of wall, then rebrick cracked area.
· Debris in Sole Flue	· Range from 0%, 25%, 75%, and 100% blockage	· Cleanout blockage >50%, weather permitting

A. Sole Flue Inspection

The sole flue inspection program is designed to evaluate the condition of the sole flue chambers at IHCC. The sole flue chambers are responsible for containing and promoting the combustion process as the volatile matter (VM) begins to burn off in the oven during the coking process. These chambers are comprised of a series of expansion joints and various silica brick shapes that come together to form four (4) gas passageways. These gas passageways carry the flue gas to the uptake portions of the oven and promote floor heating to assist in the coking process.

The sole flue inspection is completed on both the push and coke sides of the ovens where either a damper or an inspection brick is present. The inspection brick of the desired oven is removed to begin the inspection. The conditions observed during the inspection are recorded for further analysis to determine whether any repairs may be necessary or whether there are items that require continued monitoring. Findings are summarized in a form, as Attachment C – Oven Health Inspection Summary Form – Sole Flue. The following is an example list of conditions that are checked during the inspection:

- Pinched/Slipped/Flattened Rings or Arches
- Drops or Debris in Sole Flue (i.e. Fallen Brick)
- Sole Flue Wall Damage (i.e. Cracks)
- Sole Flue Melt/Overheating
- Cracks and Signs of Air Leakage on the Sole Flue Floor (i.e. Black Lines)
- Previous Silica Weld Repair Condition
- Broken Sole Flue Damper Support and/or Damage

Repair designations and suggestions for repair timing for identified sole flue damage resulting from this inspection are summarized below. All sole flue repairs shall be completed as soon as practicable. If any sole flue repair is not completed within 120 days, then IHCC shall document the reasons for the delay.

- Minimum – a small crack, nearly superficial and will be monitored for future expansion. Little to no debris in sole flue.
- Moderate – the crack has observed gas passing through the crack and now requires action. Welding is recommended. Debris blocks sole flue approximately 50%, clean out should be reviewed.
- Severe – The crack is allowing material to pass through and repairs are needed as soon as practical. Debris in sole flue requires clean out.

B. Mechanical Inspection

The mechanical inspection program is a system designed to capture damage to key mechanical components of IHCC's coke ovens, summarized below. These components help maintain the refractory integrity of the oven during thermal cycling and ensure that proper tension and sealing is maintained for optimal oven performance.

I. Visible Components

The mechanical inspection is completed on both the push and coke sides of the ovens, as well as top and bottoms of the ovens. The entire coke oven, including but not limited to the following equipment, will be checked during the inspection:

- Buckstays
- Tie Rods (Both Top and Bottom) - spring assemblies
- Sill Beams
- Lintels

- Doors
- Jamb Plates
- Battery Benches
- Oven Door
- Sole Flue End Wall Beam
- Sole Flue Damper Pipe

Conditions observed during the inspection, summarized in Table 2 below, are recorded for further analysis to determine whether any repairs may be necessary or whether there are items that require continued monitoring. This table is for example purposes only. Findings, such as Minimum, Moderate, and Severe repair requirements, are summarized in a form, as Attachment D – Oven Health Inspection Summary Form – Mechanical.

II. Non-visible components

- Downcomers and upcomers
- Underneath walls

Non-visible portions of the oven, which include downcomers, upcomers, and underneath the walls, cannot be inspected directly. However, issues related to these areas may be inferred based on damage in visible areas of the oven, such as damage to adjacent airspace beams next to the wall or cracks in the wall of the oven. Conditions observed during the monitoring of visible components will be recorded and analyzed to determine whether maintenance or repairs on non-visible components will be necessary following inspection or at a later date.

Table 2. Summary of Conditions in Mechanical Oven Health Inspection

Component List	**What to Check**	**Condition(s)**
(Items and equipment to be checked under each task)	(Detailed list of what must be completed under each task)	(List of conditional states of deterioration)
· Buckstay	· Top	· Twisted, bowed, plumb, machinery contact
	· Middle	· Gaps between refractory wall and buckstay
	· Bottom	· Attached to foundation, corrosion
· Tie Rod Assembly (top and bottom) (left and right)	· Spring	· Compressed/relaxed spring, missing spring
	· Nut/bridle	· Broken spring/tie rod, 2010 design or original
		· Bent or twisted spring assembly
	· Clean for proper air flow	· Air space open

· 8" or 12" support beam (between slab and pad)	· Original position or spacing	· Structural integrity and corrosion
	· Deteriorated/structural integrity	· Warped, thinned, elastic collapse
· Lintel	· Signs of overheating – discoloration, flame during charge	· Verify brackets are installed to secure lintel
	· Deterioration/gaps in refractory	· Burnt, leaking – air infiltration
	· Correct position	· Lintel dropped or uneven
· Jambs	· Check for separation between refractory and jamb plate	· Deterioration, spalling
	· Separation between jamb and buckstay	· Sill plate out of position
	· Check for overheating	· Material is warped
	· Bottom sill plate	· Sill plate out of position
	· Broken/cracked jamb	· Deterioration
· End wall	· Check structural for alignment	· Broken, cracked refractory
	· Check for brick displacement or deformity	· Bulging sections of brick

C. Oven Chamber Inspection

The oven chamber inspection program is designed to evaluate the condition of the coking chamber at IHCC. The coking chamber is responsible for holding the coal charge, sustaining and containing the phase change, and releasing H_2O and VM from the coal bed. The inspection process is based on the use of photography and the comparison of photos between inspections. The oven chamber inspection is completed by taking photographs of the oven, after it has been pushed out, from the pusher side.

The following lists conditions that will be checked for during the inspection, reviewed in the photographs, and are triggers for repairs:

- Wall Cracks at Uptakes and Down Comers
- Failed Down Comer Arches
- Damaged Crown Arches
- Wall Holes/Erosion
- Damaged Refractory on Lintels/Side Jambs
- Loose or Fallen Crown Brick
- Cracks in Oven Walls (where flame is passing through cracks in oven walls)
- Floor Holes
- Carbon Thickness
- Pusher Side Sill

Repair designations and suggestions for repair timing for identified damage resulting from this inspection are summarized below:

- Minimum – a small crack, nearly superficial and shall be monitored for future expansion.
- Moderate – the crack has observed gas passing through the crack and now requires action. Welding is recommended.
- Severe – The crack is allowing material to pass through and repairs are needed as soon as practical.

Findings are summarized in a form, included as Attachment E – Oven Health Inspection Summary Form – Oven Chamber. All photos are maintained electronically for future comparison and in accordance with recordkeeping requirements.

D. Oven Refractory Exterior Inspection

The oven refractory exterior inspection, which includes the oven crown area inspection, is completed on top of the ovens on both the push and coke sides of the ovens. Findings are summarized in a form, included as Attachment E – Oven Health Inspection Summary Form – Oven Chamber.

Repair designations and suggestions for repair timing for identified exterior refractory repair resulting from this inspection are summarized below:

- Minimum – a small crack, nearly superficial and will be monitored for future expansion.
- Moderate – the crack has observed gas passing through the crack and now require action. Patching is recommended.
- Severe – The crack is allowing gaseous material to pass through and may cause bricks to fall out; repairs are needed as soon as practical.

1. Oven Crown

The oven crown is a combination of ceramic wool, and gunnite. Multiple layers are utilized to better insulate the oven silica brick and help maintain a steadier change in thermal cycling as the refractory proceeds through the coking process. During the inspection, the following is examined:

- Cracking and/or Hooved-Up Gunnite (with a focus at inspecting the lintel plate area of both the coke side (C/S) and push side (P/S))
- Evidence of Flames
- Smoke or Escaped Emissions
- Interface at the Lintel and Crown Brick

2. End Walls and Buttress Walls

The oven end walls contain the sole flue dampers and inspection bricks. The following are examined during the inspection:

- Spalling of Face Brick
- Erosion
- Glowing Cracks within Brick Mortar
- Damaged or Missing Face Brick
- Leakage Behind Sill Beam and Sole Flue Area

3. Center Jambs

Jambs provide sealing along the sides of the door and translate pressure from the buckstay to the silica brick oven walls. Any discoloration and signs of smoke in the areas of the center jambs are noted.

E. Infrared Thermography (IR) Scan

Infrared thermography (IR) is the condition-monitoring tool utilized to trend external metal temperatures of refractory lined equipment using an IR camera. IR can be used to identify areas where the refractory lining is exhibiting signs of deterioration. All data obtained during the examination will be evaluated to determine if repairs are necessary, and if not, based on their relevancy, be put on a monitoring schedule.

The IR inspection applies to refractory lined equipment at IHCC summarized below:

- Common Tunnels
- Vent Stacks
- Crossover Ducts

Upon completion of the IR inspection and data evaluation, areas showing indications of refractory deterioration, as indicated by “hot spots” that show higher temperature readings during the IR scan, shall be prioritized for repairs or subsequent inspections based on the observed temperature of the “hot spots.”

F. Oven Door Inspections

Oven doors provide an access portal to the coking oven chamber. Its primary focus is to retain heat through a refractory insulating castable attached shape and latch securely to the oven buckstay. The door is constructed to provide a good sealing area between the lintel plate, jamb plate, and door sealing edge. The doors, lintels, and jambs are key components to maintain heat, reduce air infiltration, and allow access to the coke chamber for pushing and charging.

External door inspections will be conducted at least quarterly. The oven door inspections provide the necessary information for repair prioritization and work order scheduling.

When viewing the doors, personnel will look for holes, overheating, latches and their positions, sill beam position, damper functionality and integrity, and warping/bowing. In addition, personnel will note if gas lances are installed, if there are missing latches, and if the ceramic wool is missing or intact.

Findings are summarized in a form, included as Attachment D – Oven Health Inspection Summary Form – Mechanical.

G. Damper Block Inspections

Damper Block Inspections will be utilized to evaluate and understand the condition of the damper blocks. The uptake dampers are comprised of lightweight materials that are vacuum bonded to the desired shape or are pre-cast refractory shapes. These dampers are actuated using an air cylinder and controlled via computer system. The Damper Block Inspections determine whether any repairs are needed to the uptake areas, as identified by a stuck damper block or a broken damper block that negatively impacts uptake functionality. Areas inspected include the presence and integrity of the damper block currently installed as well as the functionality of their respective air cylinder.

Damper Block inspections are conducted at least quarterly with results of the inspection documented within the work order, for review, following the PM workflow process.

H. Declinker Inspections

Declinker Inspections are utilized to evaluate the level of built-up carbon material called “clinker” on the floors of Coke Ovens. This inspection determines whether a coke oven needs to undergo a declinker process and can include a measurement for the amount of carbon “clinker” present in the coke oven. Findings are summarized in a form, included as Attachment E – Oven Health Inspection Summary Form – Oven Chamber.

Declinker Inspections are conducted at least annually.

VI. PROCEDURES FOR REPAIRS RESULTING FROM COKE OVEN HEALTH INSPECTIONS

Depending on the results of the inspections previously summarized, various parts of the coke ovens may require routine maintenance and repairs. Any issues discovered during the inspection will be documented in their respective summary forms, following the PM Workflow Process, and are included as Attachment C – Oven Health Inspection Summary Form – Sole Flues. Table 3 provides an example summary of typical recommended coke oven repairs from oven health inspections. This table is for example purposes only; this PMO Plan will not be updated to reflect changes to this table.

Table 3. Summary of Typical Oven Adjustments and Repairs

Title	Trigger for Repair	Recommended Repairs
Ceramic Wool Repair	Poor/Missing Ceramic Wool	Repair/Replace Ceramic Wool
Limit Switches Reset	Limit Switches Not Accurate	Reset Limits
Insufficient Common Tunnel Pressure	Common Tunnel Pressure Causing Low Draft	Raise Draft
Blocks Stuck-Build-up in Tracks	Blocks Stuck-Build-up in Tracks	Clean Tracks
Lintel Repair	Bad Lintel	Patch and Schedule Repair
Cam Bolts Replacement	Missing Cam Bolts	Replace Cam Bolts
Door/Refractory	Bad Door/Missing	Replace Door
Blocks Replacement	Broken Blocks	Replace Blocks
Restore Power to Unit	No Power to Unit	Restore Power
Changing Damper Block	Cracking, Missing, or Drifting from Set Positions	Repair/Replace Damper Block
Hot Patch Door	Hot Spots	Patch the refractory
Insulating the Crown	Damaged Crown Arches, Loose or Fallen Crown Brick	Replace the Ceramic Wool and/or Brick
Declinkering Ovens	Carbon Build-Up	With the Oven Empty, Use the Pusher Ram, According to Procedures, and Scrape Away Built Up Clinker
Ceramic Welding Repair	Cracked Refractory Brick	Fill Cracks/Holes via Ceramic Welding

The list of recommended repairs is updated and revised based on operating experience with the most up-to-date version is maintained physically and/or electronically on IHCC's servers, as required. The current list of recommended repairs is available for inspection on-site upon request. Additional detail for more common coke oven repairs are summarized in the following subsections:

1. Repair Procedure for Changing a Coke Oven Uptake Damper Block

This repair procedure summarizes an example method for removal and replacement of the uptake damper block, performed after identifying necessary repairs from an inspection. The repair procedures for the uptake damper blocks on the P/S and the C/S of the oven are identical. If an oven has multiple damper blocks stacked, the bottom top is removed first, followed by the middle and bottom blocks. Otherwise, the single damper block is removed and replaced as a single piece. Removal is done using a block ladder, a device that the block can roll along saving the workers from the strain of the full weight of the block. If all of the blocks need to be removed, it is recommended to inspect and clean the transition slide while access is readily available. The new uptake damper blocks are replaced into the slide using the block ladder and inspected by raising and lowering the slide to ensure the uptake functions properly.

2. Repair Procedure for the Hot Patch of a Coke Oven Door

This repair procedure summarizes an example method for hot patching a door, the purpose of which is to quickly and efficiently repair the coke oven door refractory. With the door rack on the loader bucket, the respective access procedures for the P/S and C/S are followed, as applicable. With the top latches slid in and the cams removed, the damaged door is removed and a new door is installed. For the P/S only, the oven belt must be running. The damaged door requiring a hot patch is then removed from the door rack and laid down with the material side up. Forms are placed on the areas that require patching. After the area is patched, the area is then covered with ceramic wool. After drying, the door is then set back in the rack or reinstalled onto the coke oven. Other methods may be used for hot patching a coke oven door, as appropriate, such as having coke oven doors repaired by a third party.

3. Repair Procedure for Insulating the Coke Oven Crown

This repair procedure summarizes an example method for insulating the crown on both the C/S and P/S of the coke oven, the purpose of which is to prevent or reduce air leakage at the oven crown area, ultimately minimizing Coke Oven Leaks. When an area is identified for repair, sealant is injected for repair or the existing insulation is removed and replaced with new insulation to reseal the area.

4. Repair Procedure for Declinkering Coke Ovens

This repair procedure summarizes an example method for declinkering ovens or carbon removal. Clinker is the eventual carbon buildup on the floors of coke ovens. An average coke oven should be declinkered approximately every 3-4 years. However, depending on the average charge weights and operating temperatures, the process may need to be completed earlier in the 2-3 year range.

An oven selected for declinkering is pre-inspected for possible wall welding requirements and sole flue arch conditions, and is then pushed empty. Oven temperature is closely monitored by the Product Technicians/Burners during this time. When the oven is ready for declinkering, the PCM pushing ram is eased into the oven for declinkering so that the ram head catches the buildup on the bottom of the floor. The process may be repeated several times as needed. Other methods may be used, as appropriate, in the process of declinkering.

Upon successful declinkering, the oven is then returned to production by “stepping” up the charge weights to minimize charges sticking to the floor of the oven.

5. Repair Procedure for Ceramic (Silica) Welding for Coke Ovens

This repair procedure summarizes an example method for performing ceramic (silica) welding for refractory cracks identified in a routine oven chamber inspection. Through normal use, a coke oven will develop cracks as the refractory ages.

Refractory cracks are referred to as:

- Minimum – a small crack, nearly superficial and will be monitored for future expansion.
- Moderate – the crack has observed gas passing through the crack and now required action. Welding is recommended.
- Severe – The crack is allowing material to pass through.

The refractory is first prepared for welding by cleaning the refractory of loose rubble and carbon build-up. The ceramic welding is performed following the recommended welding practices, such as filling holes in a progressive and circular motion. Once welding has been completed, the welding area is visually inspected.

VII. QUARTERLY VISUAL INSPECTIONS OF COMMON TUNNEL (CONSENT DECREE IV.D.23.a.ii.)

The common tunnel is a cylindrical pipe, approximately six (6) feet in diameter, which joins oven uptakes on a battery. During the coking process in each oven, flue gas is drawn through the common tunnel using negative pressure generated by Cokenergy or the Bypass Vent Stacks.

An internal inspection of the common tunnel is used to determine if there are any potential blockages. This is done by visually inspecting the common tunnel from each end. In addition to an internal inspection, an external inspection of the common tunnel will be conducted quarterly to determine if there are any holes, or potential holes, and will be scheduled as a PM work order within the EAM system. During the external inspection, the top half of the common tunnel and stacks are scanned with an infrared tool and/or visual inspection.

Additionally, IHCC personnel will review pressure readings reported by the differential pressure (dP) cells in the common tunnel to determine whether any loss of negative pressure could be attributable to potential blockage. The common tunnel dP cell locations are summarized in Section IX of this PMO Plan.

After the inspections, the Oven Repair Supervisor, or equivalent, will make any necessary recommendations for common tunnel cleaning, repair, and/or replacement that affects negative pressure. Common tunnel cleaning, repair, and/or replacement is commenced as soon as practical and documented with generated work orders within the EAM system. Repair procedures for the common tunnel are found in Section VIII of this PMO Plan. An example copy of the common tunnel inspection is included as Attachment F – Common Tunnel Inspection Work Order. Updates to the PM shall be made within the EAM system.

VIII. PROCEDURES FOR REPAIRS RESULTING FROM COMMON TUNNEL INSPECTIONS

1. Repair Procedure for the Hot Patch of the Common Tunnel

The common tunnel is often repaired using a hot patch method. Hot patching can be achieved through windows, or access points, along the common tunnel. In an area where this is not possible, the common tunnel may be separated from the uptakes. After separating the common tunnel from the uptakes, the common tunnel section requiring a hot patch is drilled to pierce the interior refractory, following a predetermined anchor pattern. Once drilled, anchors are inserted and welded to the metal shell. Gunnite material is sprayed along the sides of the tunnel first, working up towards the top. After the gunnite material dries and, upon inspection appears stable, the uptake section is reattached.

This procedure is an example of one method used for repairing the common tunnel, though other methods may be used, as appropriate, such as cutting out and replacing an entire section.

2. Selective Replacement of the Common Tunnel

In the event that repairs of the common tunnel are unsuccessful, selective replacement of sections of the tunnel shall be made, as needed to ensure negative pressure within the common tunnel. The damaged section of the common tunnel is cut out and removed by crane and, a new piece is set into place.

IX. ADDITIONAL COMMON TUNNEL DIFFERENTIAL PRESSURE CELLS (CONSENT DECREE IV.D.23.a.iii.)

Differential pressure (dP) cells are used to ensure that the common tunnel maintains negative pressure during operations. Supplemental to the dP cells previously installed, as of Q1 2018, additional common tunnel differential pressure (DP) cells have been installed at approximately the midpoint between each Bypass Vent Stack on each respective battery. All currently installed common tunnel differential pressure cells are summarized in the following table:

Table 4. Summary of Common Tunnel dP Cell Locations

<table>
<tr><th>A Battery</th><th>B Battery</th><th>C Battery</th><th>D Battery</th></tr>
<tr><td>North End of A Common Tunnel</td><td>North End of B Common Tunnel</td><td>North End of C Common Tunnel</td><td>North End of D Common Tunnel</td></tr>
<tr><td>North Side of Stack A1</td><td>North Side of Stack B1</td><td>North Side of Stack C1</td><td>North Side of Stack D1</td></tr>
<tr><td>South Side of Stack A1</td><td>South Side of Stack B1</td><td>South Side of Stack C1</td><td>South Side of Stack D1</td></tr>
<tr><td>Midpoint Between Stacks A1 and A2</td><td>Midpoint Between Stacks B1 and B2</td><td>Midpoint Between Stacks C1 and C2</td><td>Midpoint Between Stacks D1 and D2</td></tr>
<tr><td>North Side of Stack A2</td><td>North Side of Stack B2</td><td>North Side of Stack C2</td><td>North Side of Stack D2</td></tr>
<tr><td>South Side of Stack A2</td><td>South Side of Stack B2</td><td>South Side of Stack C2</td><td>South Side of Stack D2</td></tr>
<tr><td>End of Common Tunnel, South of Stack A2</td><td rowspan="2">Midpoint Between Stacks B2 and B3</td><td rowspan="2">Midpoint Between Stacks C2 and C3</td><td rowspan="2">Midpoint Between Stacks D2 and D3</td></tr>
<tr><td>End of Common Tunnel, North of Stack A3</td></tr>
<tr><td>North Side of Stack A3</td><td>North Side of Stack B3</td><td>North Side of Stack C3</td><td>North Side of Stack D3</td></tr>
<tr><td>South Side of Stack A3</td><td>South Side of Stack B3</td><td>South Side of Stack C3</td><td>South Side of Stack D3</td></tr>
<tr><td>Midpoint Between Stacks A3 and A4</td><td>Midpoint Between Stacks B3 and B4</td><td>Midpoint Between Stacks C3 and C4</td><td>Midpoint Between Stacks D3 and D4</td></tr>
<tr><td>North Side of Stack A4</td><td>North Side of Stack B4</td><td>North Side of Stack C4</td><td>North Side of Stack D4</td></tr>
<tr><td>South Side of Stack A4</td><td>South Side of Stack B4</td><td>South Side of Stack C4</td><td>South Side of Stack D4</td></tr>
<tr><td>South End of A Common Tunnel</td><td>South End of B Common Tunnel</td><td>South End of C Common Tunnel</td><td>South End of D Common Tunnel</td></tr>
</table>

The differential pressure readings of the common tunnels, measured continuously, are visible within IHCC's Distributed Control System (DCS). In the event that pressure readings are positive, troubleshooting is performed to identify and correct the cause. These differential pressure cells are calibrated, on a quarterly basis through zero point checks, with additional checks performed as needed.

X. TRAINING OF OPERATORS (CONSENT DECREE IV.D.23.a.iv.)

All IHCC personnel, new employees, and employees transferred to a new job function will be trained for their specific job function and their respective environmental requirements. Training is refreshed on an annual basis for the required personnel. Refresher trainings are completed as needed. Field training may also be used in lieu of classroom training.

IHCC will train responsible personnel, including, but not limited to, Product Technicians/Burners, PCM Operators, and Oven Inspectors, to visually identify Coke Oven Leaks and Coke Oven health indicators. Training provides attendees with examples of Coke Oven Leaks and describes recordkeeping and corrective action requirements. For required IHCC personnel and/or contractors, Method 9 training is conducted by an external third party, in accordance with Method 9 requirements.

A. Product Technicians/Burners

Product Technicians/Burners are internally trained in the proper operation of the oven dampers, including door holes, sole flues, and uptakes, in order to maintain negative pressure in the ovens and common tunnel and optimal coke oven equilibrium, maximizing coke oven life, as well as their environmental requirements. Daily inspections of the oven condition are documented on Attachment I and submitted into the Shift Team Leader or Shift Manager at the end of their respective shift. Product Technicians/Burners are trained to identify a coke oven leak as any visible emissions, such as flames and/or smoke, from any part of the oven outside the door (i.e. buckstays, roof/crown, lintel, etc.). Training regarding coke oven leaks includes:

- P/S of Ovens – All door leaks observed at any time during the coking cycle must be corrected within fifteen (15) minutes of identification.
- C/S of Ovens – All door leaks under the shed observed at any time during the coking cycle must be corrected within forty-five (45) minutes of identification.
- All Other Coke Oven Leaks (i.e. Crown) – All other coke oven leaks, outside the doors, observed from the ground at any time during the coking cycle must be corrected within thirty (30) minutes of identification. If crown leaks exceed thirty (30) minutes, the procedures for Method 9 readings, when applicable, must be followed.

Product Technicians/Burners are trained to properly complete the Coke Oven Checklist and Coke Oven Leak Record Sheet, included as Attachment I. The information record requires the oven number, the leak observed time, the leak end time, the cause (if known), corrective actions implemented to stop the leak, whether or not the leak was caused by adverse wind conditions, and the location of the leak. This form is submitted by the Product Technician/Burner into their respective Team Leader or Shift Manager for review.

Product Technicians/Burners are trained that all observed coke oven leaks must be responded to and properly documented. Training records for all trainees shall be maintained for five years.

B. PCM Operators

PCM Operators are internally trained in the identification and documentation of door leaks observed on their operational pushing report. This includes whether or not a leak was observed, the corrective actions implemented to mitigate and stop the leak, and the terminal time of the leak. Training records for all trainees will be maintained for five years.

C. Oven Inspectors

Oven inspectors utilize internal training to ensure the document inspection procedures are properly followed to ensure all necessary repairs can be identified and adequately made. Initial training shall include a presentation with example images for repair priority designations: minimal, moderate, and severe. This presentation reviews images of each oven component investigated. Meetings among the oven team personnel are held to review previous inspections to ensure sufficient knowledge.

XI. VISUAL INSPECTION OF EACH OVEN EXTERIOR (CONSENT DECREE IV.D.23.a.v.)

On a daily basis, a visual inspection of the exterior ends of the ovens, from the ground, must be made and documented to identify Coke Oven Leaks. Daily inspections, at a minimum, are documented by the Product Technician/Burner and maintained in accordance with record keeping requirements. Utilizing the Coke Oven Checklist and Coke Oven Leak Record Sheet, included as Attachment I, the daily shift inspection record includes the following:

- Inspection of the door and crown for leaks from the P/S of the oven
- Inspection of the door and crown for leaks from the C/S of the oven
- Inspection for leaks outside the shed on the C/S side
- Other comments the Product Technician/Burner may have identified during their visual inspection

In the event that an Oven Leak is observed during the operator's shift inspection, the record information requires the oven number, the leak observed time, the leak end time, the cause (if known), corrective actions implemented to stop the leak, whether or not the leak was caused by adverse wind conditions, and the location of the leak. In the event that adverse wind conditions are the cause of a Coke Oven Leak, the wind speed and direction are documented. This form, included as Attachment J, is submitted by the Product Technician/Burner into their respective Team Leader or Shift Manager for review. An additional oven leak form, used to document Coke Oven Leaks occurring outside of these daily inspections, is included as Attachment H – IHCC Coke Oven Leak Record. These forms are maintained physically and/or electronically, in accordance with recordkeeping requirements.

As part of the daily inspections described in Section XI, operators will also inspect the Oven Crown. In the event that opacity lasting more than 30 minutes is observed at the oven, a Method 9 reading will be performed to determine the opacity, provided conditions identified in Method 9 allow for an observation pursuant to Method 9. Method 9 will be conducted by certified observers, using a third party if practicable. The forms used to record the Method 9 opacity readings are included as Attachment G – Method 9 Inspection Form.

XII. PERIODICALLY CONFIRM METHOD 9 OPACITY READINGS DURING TRAINING (CONSENT DECREE IV.D.23.a.vi.)

In the course of training employees in performing Method 9 opacity readings, USEPA Alternative Method 082 shall be used annually to confirm the Method 9 opacity readings.

IHCC will use a third party "smoke school" to train employees in performing the Method 9 opacity readings. In addition, during training activities, the USEPA Alternative Method 082 may be conducted by the third party "smoke school" using their own equipment to confirm the Method 9 readings conducted by trainees. Any training records, certification forms, and/or inspection forms from the third party "smoke school" will be sent to the Environmental Manager for recordkeeping (either physically or electronically).

XIII. DAILY OPERATION CHECKLIST (CONSENT DECREE IV.D.23.a.vii.)

On a daily basis, an operation checklist, titled Coke Oven Checklist and Coke Oven Leak Record Sheet, and included as Attachment I, is completed by the Product Technician/Burner and maintained in accordance with record keeping requirements. The checklist includes the following:

- Inspection of the door and crown for leaks from the P/S of the oven
- Inspection of the door and crown for leaks from the C/S of the oven
- Inspection for leaks outside the shed on the C/S side
- Other comments the Product Technician/Burner may have identified during their visual inspection

In the event that a Coke Oven Leak is observed during the operator's shift, the record information requires the oven number, the leak observed time, the leak end time, the cause (if known), corrective actions implemented to stop the leak, whether or not the leak was caused by adverse wind conditions (in accordance with the Consent Decree), and the location of the leak. This form, included as Attachment I, is submitted by the Product Technician/Burner into their respective Team Leader or Shift Manager for review. An additional oven leak form, used to document coke oven leaks occurring outside of these daily inspections, is included as Attachment H – IHCC Coke Oven Leak Record. These forms are maintained physically and/or electronically, in accordance with recordkeeping requirements.

XIV. ONGOING MAINTENANCE AND REPAIRS (CONSENT DECREE IV.D.23.a.viii.)

Ongoing maintenance and repairs are tracked as part of the EAM software system, including but not limited to items identified by the daily operation checklist, titled Coke Oven Checklist and Coke Oven Leak Record Sheet, and included as Attachment I. Examples of recommended repairs are provided in Table 5. This table is for example purposes only; this PMO Plan will not be updated to reflect changes to this table.

Table 5. Summary of Ongoing Maintenance and Repairs

Maintenance Repair	Trigger for Repair	Recommended Repairs
Lintel Repair	Bad Lintel	Patch and Schedule Repair
Cam Bolts Replacement	Damaged/Missing Cam Bolts	Replace Cam Bolts
Door/Refractory	Bad Door/Missing Refractory	Replace Door
Blocks Replacement	Broken Blocks	Replace Blocks
Restore Power to Unit	No Power to Unit	Restore Power
Changing Damper Block	Cracking, Missing, or Drifting from Set Positions	Repair/replace damper block
Hot Patch Door	Hot Spots	Patch the refractory
Insulating the Crown	Damaged Crown Arches, Loose or Fallen Crown Brick	Replace the ceramic wool and/or brick
Ceramic Welding Repair	Cracked Refractory Brick	Fill cracks/holes via ceramic welding

XV. COORDINATION OF MAINTENANCE TO MINIMIZE BYPASS VENTING (CONSENT DECREE IV.D.23.a.ix.)

IHCC will coordinate with Cokenergy to minimize Bypass Venting. IHCC will make every effort to conduct maintenance that requires Bypass Venting during times when Cokenergy is conducting maintenance that requires Bypass Venting on one or more stacks. IHCC will review the Cokenergy HRSG outage schedule and, where practicable, schedule maintenance work to coincide with Cokenergy's work in a way that minimizes overall Bypass Venting.

XVI. RECORDKEEPING AND REPORTING (CONSENT DECREE IV.D.23.a.x.)

IHCC will maintain and make available for inspection the applicable records, logs, and/or reports maintained physically and/or electronically, as required by the Consent Decree. This documentation includes records detailing observed individual Coke Oven Leaks, Oven health indicators such as "Minimum", "Moderate", and "Severe", and any maintenance or repairs performed in response to Coke Oven Leaks. IHCC's recordkeeping and reporting obligations pertaining to regulatory requirements, except for the Consent Decree, are maintained in other IHCC plans and/or permits associated with the applicable regulation.

In addition, IHCC will submit semiannual progress reports to the USEPA and IDEM pursuant to the Consent Decree. These reports will include a copy of any updates to this PMO Plan, if applicable.

XVII. COMPLIANCE ASSURANCE PLAN

This section provides the Compliance Assurance Plan (CAP) to address potential periods of higher production levels, as follows. IHCC will evaluate the monthly production and monthly sulfur content of dry coal to identify whether they exceed both of the levels indicated by either Trigger 1 or Trigger 2 in the following chart in two consecutive months (High Production Level Months).

Level Description	Trigger 1	Trigger 2
Average Monthly Sulfur Content of Dry Coal	Between 0.7% and 0.9%	>0.9%
Average Monthly Tons of Dry Coal Charged	144,000	128,000

To identify High Production Level Months, the planned monthly production throughput will be evaluated with the previous month's average coal quality analyses. The monthly production and monthly quality averages for coal, including, but not limited to, sulfur and moisture content, will be tracked using a running log.

In conjunction with the Emission Tracking Software (ETS), the monthly production and monthly quality averages will be used to evaluate whether subsequent High Production Level Months may cause exceedances of particulate matter (PM) or sulfur dioxide (SO_2) limits. The calculated emissions will be compared to PM and SO_2 emissions limits set forth in the IHCC Air Permit and the Consent Decree in the Daily Compliance Status Report, an output of the ETS. The Daily Compliance Status Report and Monthly Sulfur Balance Report from the ETS will be maintained.

During subsequent High Production Level Months, IHCC will utilize ETS calculations to estimate if exceedances of PM Emissions or SO_2 emission limits may occur and respond accordingly. The following figures, used only for illustrative purposes, summarize the parameters used as the basis for SO_2 and PM Emissions:

Figure 1. Illustrated Parameters Used to Determine SO_2 Rate

<table>
<tr><th>These Variables:</th><th>Determine:</th><th>Which Determine:</th><th>Which Determine:</th></tr>
<tr><td>HRSG Actual Steam Rate</td><td rowspan="2">Percent Gas Vented</td><td rowspan="5">Vented SO_2 Rate</td><td rowspan="7">Total SO_2 Rate</td></tr>
<tr><td>HRSG Potential Steam Rate</td></tr>
<tr><td>Coal Sulfur</td><td rowspan="2">Potential SO_2 Emission Factor</td></tr>
<tr><td>Coke Sulfur</td></tr>
<tr><td colspan="2">Production Rate</td></tr>
<tr><td colspan="2">Main Stack SO_2 Concentration</td><td rowspan="2">Main Stack SO_2 Rate</td></tr>
<tr><td colspan="2">Main Stack Gas Flow</td></tr>
</table>

Figure 2. Illustrated Parameters Used to Determine PM Emissions Rate

<table>
<tr><th>These Variables:</th><th>Determine:</th><th>Which Determine:</th><th>Which Determine:</th></tr>
<tr><td>HRSG Actual Steam Rate</td><td rowspan="2">Percent Gas Vented</td><td rowspan="4">Vented PM Emissions Rate</td><td rowspan="5">Total PM Emission Rates</td></tr>
<tr><td>HRSG Potential Steam Rate</td></tr>
<tr><td colspan="2">Production Rate</td></tr>
<tr><td colspan="2">Uncontrolled PM Emissions Factor</td></tr>
<tr><td colspan="3">Main Stack PM Emissions Rate</td></tr>
</table>

IHCC will coordinate with Cokenergy to comply with PM Emissions and SO_2 applicable limits. These responses include, but are not limited to, ensuring Bypass Venting Stacks are properly closed, and ensuring sufficient SO_2 scrubbing or optimized spray dryer operation with Cokenergy.

XVIII. ROOT CAUSE FAILURE ANALYSIS

IHCC utilizes RCFA techniques to investigate Coke Oven Leaks. The RCFA process helps address issues by identifying and implementing corrective actions for the root causes of events. By focusing on the root cause, the likelihood of recurrences can be reduced.

The primary aim of an RCFA is to identify the contributory (causal) factors that resulted in the nature, magnitude, and location of one or more past Coke Oven Leaks. By establishing causal factors, IHCC can identify potential actions, inactions, and/or conditions that may be modified to reduce the likelihood of recurrence of similar outcomes. In addition, the RCFA process is used to identify the lessons to be learned to promote continuous improvement. A team-based approach towards conducting an RCFA may be utilized, and the investigation will endeavor to understand the relationships between potential root cause(s) and resulting failure(s) to minimize the likelihood of recurrence.

One of two RCFAs will be conducted for every Coke Oven Leak and shall contain the information outlined below:

A. Summary RCFA

If IHCC determines that any of the Coke Oven Leaks triggering the RCFA were caused by high winds, equipment maintenance or malfunction that is unrelated to Structural Issues with the Oven, impacts from another Oven within the same bank of 16 or 17 Ovens, or acts or omissions not related to equipment owned or operated by IHCC or Cokenergy, then IHCC shall conduct a Summary RCFA that includes, at a minimum:

a. The date and time that the Coke Oven Leaks were observed, and the duration of the Leaks, to the extent known;

b. If the Coke Oven Leaks were caused by high winds, i.e., adverse wind conditions, identification of wind speed and direction data for the time of the Coke Oven Leaks;

c. If the Coke Oven Leaks were caused by impacts from adjacent Ovens, identification of the causes of those impacts;

d. Identification of any actions taken to stop the Coke Oven Leaks; and

e. A description of corrective action(s) available to IHCC that are necessary to prevent or reduce the likelihood of a recurrence of Coke Oven Leaks at the Oven and the date of implementation of the corrective action(s).

B. Full RCFA

For Coke Oven Leaks triggering an RCFA that are not addressed by a Summary RCFA, IHCC will communicate with Cokenergy when conducting the Full RCFA that includes, at a minimum:

a. The date and time that the Coke Oven Leaks were observed, and the duration of the Leaks, to the extent known. If the Coke Oven Leaks involved multiple time periods of emissions, the starting and ending dates and times of each time period shall be set forth, to the extent known;

b. Identification of any actions taken to stop the Coke Oven Leaks;

c. A detailed analysis that sets forth the root cause(s) and all contributing causes of the Coke Oven Leaks, to the extent determinable, and the steps, if any, that were taken to limit the duration and/or quantity of emissions associated with the Coke Oven Leaks;

d. An analysis of the measures, if any, that are reasonably available to prevent or reduce the likelihood of a recurrence of Coke Oven Leaks resulting at the Coke Oven from the same root cause(s) and contributing causes in the future. The analysis shall evaluate design, operational, and maintenance changes, if any; the probable effectiveness of each such measure; the likely cost of each measure; whether or not an outside consultant should be retained to assist in the analysis; and whether the same issue would have an impact on other Ovens;

e. A description of correction actions(s) implemented and the date of implementation of the corrective action(s), or, if not already implemented, a schedule for their implementation, including proposed commencement and completion dates, or an explanation that corrective action(s) is (are) not required;

f. To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the semi-annual report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of this Paragraph will be submitted; provided, however, that if a report or a series of reports containing the information required to be submitted under this Paragraph is not submitted within sixty (60) Days (or such additional time as USEPA may allow) after the semi-annual reporting period during which the RCFA is to be submitted, the stipulated penalty provisions of Section IX (Stipulated Penalties) of the Consent Decree shall apply for failure to timely submit the report. Nothing in this Paragraph shall be deemed to excuse investigation, reporting, and corrective action obligations under this Section for any Coke Oven Leak RCFA Trigger Level that occurs after another Coke Oven Leak RCFA Trigger Level for which an extension of time is requested under this Paragraph; and

g. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, the status of the correction actions will be reported in subsequent semi-annual reports until the status has been reported as complete.

Action items from RCFAs are assigned to individuals to complete items and are tracked. The status of action items is periodically reviewed by IHCC's leadership team.

XIX. ENVIRONMENTAL: MANAGEMENT OF CHANGE

At times, certain changes to IHCC assets or operational practices that involve significant changes to process, mechanical, civil, electrical or technological specifications are managed using the EAM system Management of Change (MOC) process.

The originator of a MOC must provide the basis for the change (provide the scope) which includes the description of why a change is being proposed and what improvements or benefits are expected (provide the justification). This information is included for all MOCs and is provided during the origination phase of a MOC record.

The MOC system coordinator assigns one or more subject matter experts to review the change. The review team will include the site Environmental Manager, or their designee, whenever a process change is being proposed that involves environmental media or a process with environmental implications. A predefined list of environmental consequences may be utilized during the review and is included as Attachment J – Environmental: Management of Change. The change will also be subjected to technical analysis for adherence to good engineering design standards and to ensure the proposed design is safe, reliable, cost-effective and environmentally sound. MOC reviewers can assign follow up actions that must be completed prior to implementation of the change. Subject matter experts or their designees review and approve any changes prior to implementation.

XX. ROLES AND RESPONSIBILITIES

General Manager – Overall responsibility for all facets of the IHCC facility. Related to the PMO Plan, the General Manager ensures that trained and qualified persons are assigned as the process owners of the MOC and RCFA work processes at the site. The General Manager shall ensure that RCFAs are conducted and reviewed.

Operations Manager – Overall responsibility for all operational activities at IHCC. Related to the PMO Plan, the Operations Manager ensures that Coke Oven Leak and other operational procedures are readily available, understood, and properly executed by operations personnel. Responsible for providing or directing personnel to provide timely communication of Coke Oven Leaks at Rebuilt Ovens.

Maintenance Manager – Overall responsibility for the plant maintenance process at IHCC. Related to the PMO Plan, the Maintenance Manager ensures that job plan tasks are sufficient to provide reliability and reduce the likelihood of Coke Oven Leaks. Responsible for verifying PM completion, reporting PM compliance and developing action plans. Reviews the outage schedule and coordinating maintenance with Cokenergy, as described in Section XV.

Environmental Manager – Overall responsibility for all environmental aspects at IHCC. Ensures that all events are reported in accordance with the IHCC Air Permit, Consent Decree, and the requirements of 40 CFR 63.10(d)(5)(ii) and 40 CFR 63.7341(d). Maintains applicable physical and/or electronic records, logs, reports, and/or notifications pertaining to permit and Consent Decree requirements. Prepares periodic reports for Coke Oven Leaks to the USEPA and IDEM as part of the semi-annual compliance certifications required under Paragraph 51 of the Consent Decree and paragraphs 63.311(d) and 63.7341(c) of 40 CFR 63, Subpart L and Subpart CCCCC, respectively. Reviews the field documentation for all environmental critical PM tasks to ensure proper follow up actions are taken.

Production Maintenance Coordinator or Designee – Overall responsibility for scheduling maintenance work and critical PM tasks at IHCC. Ensures that process equipment is available for scheduled work and that work order quality (content and codification) is in compliance with work process standards prior to release to maintenance.

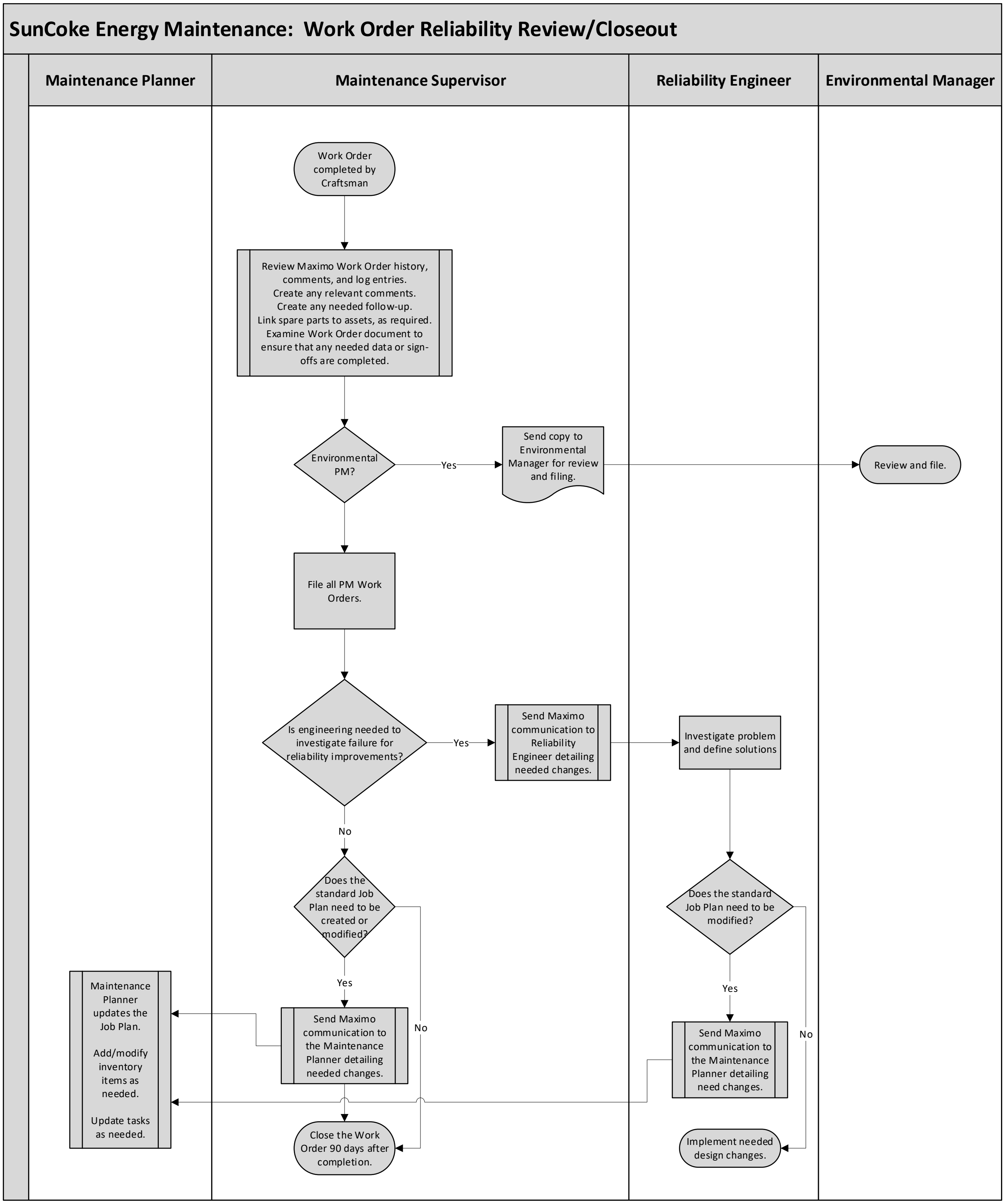
XXI. PMO PLAN MODIFICATIONS OR REVISIONS

Modifications may be made to this PMO Plan as necessary to satisfy applicable requirements or to reflect changes in equipment or procedures. In accordance with Paragraph 23 and Section VIII of the Consent Decree, changes to this PMO Plan related to minimizing Coke Oven Leaks shall be summarized and reported to USEPA and IDEM in the subsequent semi-annual periodic report. Such changes may be implemented immediately, but nonetheless shall be subject to the approval of USEPA in accordance with the Consent Decree. The PMO Plan revisions will be documented in Attachment K – PMO Plan Document Control Form.

ATTACHMENT A – EXAMPLE LIST OF ENVIRONMENTAL CRITICAL PM

PM	Description	Location
1499	PM IH A Battery Sole Flue Inspection	010A
1500	PM IH B Battery Sole Flue Inspection	010B
1501	PM IH C Battery Sole Flue Inspection	010C
1821	PM IH D Battery Sole Flue Inspection	010D
4645	PM IH A Battery Semi-Annual Tie Rod Inspection	STR-10A
4646	PM IH B Battery Semi-Annual Tie Rod Inspection	STR-10B
4647	PM IH C Battery Semi-Annual Tie Rod Inspection	STR-10C
4648	PM IH D Battery Semi-Annual Tie Rod Inspection	STR-10D
4896	PM IH A-Battery Maintenance Inspection of Common Tunnel 'Hot Spots'	TU-A
4573	PM IH B-Battery Maintenance Inspection of Common Tunnel 'Hot Spots'	TU-B
5087	PM IH C-Battery Maintenance Inspection of Common Tunnel 'Hot Spots'	TU-C
5088	PM IH D-Battery Maintenance Inspection of Common Tunnel 'Hot Spots'	TU-D
5202	Oven Door Inspection A-Battery	010A
5203	Oven Door Inspection B-Battery	010B
5204	Oven Door Inspection C-Battery	010C
5205	Oven Door Inspection D-Battery	010D
5380	Thermography Scan of A Battery Common Tunnel	010A
5381	Thermography Scan of B Battery Common Tunnel	010B
5382	Thermography Scan of C Battery Common Tunnel	010C
5383	Thermography Scan of D Battery Common Tunnel	010D
5461	PM IH A-Battery EV Stack Transition 'Hot Spot' Inspection	EVS-A
5462	PM IH B-Battery EV Stack Transition 'Hot Spot' Inspection	EVS-B
5463	PM IH C-Battery EV Stack Transition 'Hot Spot' Inspection	EVS-C
5464	PM IH D-Battery EV Stack Transition 'Hot Spot' Inspection	EVS-D
7154	PM IH A-Battery Mechanical Inspection	STR-10A
7155	PM IH B-Battery Mechanical Inspection	STR-10B
7156	PM IH C-Battery Mechanical Inspection	STR-10C
7159	PM IH D-Battery Mechanical Inspection	STR-10D
8144	A Battery Oven Chamber Bi-Annually Inspections	010A
8145	B Battery Oven Chamber Bi-Annually Inspections	010B
8146	C Battery Oven Chamber Bi-Annually Inspections	010C
8147	D Battery Oven Chamber Bi-Annually Inspections	010D
8149	A-Battery Oven Crown Area	010A
8153	B-Battery Oven Crown Area	010B
8154	C-Battery Oven Crown Area	010C
8155	D-Battery Oven Crown Area	010D

ATTACHMENT B – PM WORKFLOW PROCESS



ATTACHMENT C – OVEN HEALTH INSPECTION SUMMARY FORM – SOLE FLUE

OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
1	1 SHORT CHAMBER		1	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
2	1 SHORT CHAMBER		2	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
3	1 SHORT CHAMBER		3	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
4	1 SHORT CHAMBER		4	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
5	1 SHORT CHAMBER		5	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
6	1 SHORT CHAMBER		6	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
7	1 SHORT CHAMBER		7	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
8	1 SHORT CHAMBER		8	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
9	1 SHORT CHAMBER		9	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
10	1 SHORT CHAMBER		10	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
11	1 SHORT CHAMBER		11	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
12	1 SHORT CHAMBER		12	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
13	1 SHORT CHAMBER		13	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
14	1 SHORT CHAMBER		14	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
15	1 SHORT CHAMBER		15	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
16	1 SHORT CHAMBER		16	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
17	1 SHORT CHAMBER		17	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
18	1 SHORT CHAMBER		18	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
19	1 SHORT CHAMBER		19	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES

ATTACHMENT C (CONTINUED) – OVEN HEALTH INSPECTION SUMMARY FORM – SOLE FLUE

20	1 SHORT CHAMBER		20	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
21	1 SHORT CHAMBER		21	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
22	1 SHORT CHAMBER		22	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
23	1 SHORT CHAMBER		23	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
24	1 SHORT CHAMBER		24	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
25	1 SHORT CHAMBER		25	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
26	1 SHORT CHAMBER		26	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
27	1 SHORT CHAMBER		27	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
28	1 SHORT CHAMBER		28	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
29	1 SHORT CHAMBER		29	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
30	1 SHORT CHAMBER		30	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
31	1 SHORT CHAMBER		31	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
32	1 SHORT CHAMBER		32	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
33	1 SHORT CHAMBER		33	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
34	1 SHORT CHAMBER		34	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
35	1 SHORT CHAMBER		35	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
36	1 SHORT CHAMBER		36	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
37	1 SHORT CHAMBER		37	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
38	1 SHORT CHAMBER		38	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
39	1 SHORT CHAMBER		39	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	

ATTACHMENT C (CONTINUED) – OVEN HEALTH INSPECTION SUMMARY FORM – SOLE FLUE

OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
40	1 SHORT CHAMBER		40	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
41	1 SHORT CHAMBER		41	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
42	1 SHORT CHAMBER		42	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
43	1 SHORT CHAMBER		43	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
44	1 SHORT CHAMBER		44	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
45	1 SHORT CHAMBER		45	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
46	1 SHORT CHAMBER		46	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
47	1 SHORT CHAMBER		47	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
48	1 SHORT CHAMBER		48	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
49	1 SHORT CHAMBER		49	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
50	1 SHORT CHAMBER		50	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
51	1 SHORT CHAMBER		51	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
52	1 SHORT CHAMBER		52	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
53	1 SHORT CHAMBER		53	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
54	1 SHORT CHAMBER		54	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
55	1 SHORT CHAMBER		55	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
56	1 SHORT CHAMBER		56	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
57	1 SHORT CHAMBER		57	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
58	1 SHORT CHAMBER		58	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
59	1 SHORT CHAMBER		59	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	

ATTACHMENT C (CONTINUED) – OVEN HEALTH INSPECTION SUMMARY FORM – SOLE FLUE

OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
60	1 SHORT CHAMBER		60	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
61	1 SHORT CHAMBER		61	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
62	1 SHORT CHAMBER		62	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
63	1 SHORT CHAMBER		63	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
64	1 SHORT CHAMBER		64	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
65	1 SHORT CHAMBER		65	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
66	1 SHORT CHAMBER		66	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	
OVEN	FLUE	ISSUES	OVEN	FLUE	ISSUES
67	1 SHORT CHAMBER		67	1 LONG CHAMBER	
	2 INSPECTION CHAMBER			2 DAMPER CHAMBER	
	3 DAMPER CHAMBER			3 INSPECTION CHAMBER	
	4 LONG CHAMBER			4 SHORT CHAMBER	

ATTACHMENT D – OVEN HEALTH INSPECTION SUMMARY FORM – MECHANICAL

Oven	Air Space Beam	Left Buckstay	Right Buckstay	End Wall Beam	Left Jamb Plate	Right Jamb Plate	Lintel Plate	Bench	Door	Sill Beam	Sole Flue Damper	Top Tie Rods	No Springs on Top	Split Bridle on Top	Bottom Tie Rods
1															
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65															
66															
67															

The Items With The Most Damage				
	Worst to Least			
Air Space Beams	0	0	0	
Left Buckstay	0	0	0	
Right Buckstay	0	0	0	
End Wall Beam	0	0	0	
Left Jamb Plate	0	0	0	
Right Jamb Plate	0	0	0	
Lintel Plate	0	0	0	
Bench	0	0		
Door	0	0	0	
Sill Beam	0	0	0	
Sole Flue Damper	0	0	0	
Top Tie Rods	0	0	0	0
Bottom Tie Rods			0	0

ATTACHMENT E – OVEN HEALTH INSPECTION SUMMARY FORM – OVEN CHAMBER

Ovens	Left down corner arches	Right down corner arches	Carbon (inches)	Left down corner cracks	Right down corner cracks	Left uptake cracks	Right uptake cracks	Crown	Wall erosion	Coke side lintel	Pusher side lintel	Left pusher side jamb	Right pusher side jamb	Pusher side sill
1														
2														
3														
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66														
67														

Not Available

Cracks
0-Good
1-Minimum
2-Cracks with gas flow
3-Cracks/holes with material passing thru

Lintels/Jambs/Sills
0-Good
1-Minimum damage, no steel exposed
2-Moderate damage, steel exposed/Repair
3-Severe refractory and steel damage/Replace

Wall Erosion
0-Good
1-Minimum damage
2-Moderate damage
3-Severe damage

ATTACHMENT F – COMMON TUNNEL INSPECTION WORK ORDER

SunCoke Energy
The Higher Degree

Work Order Details 1086667: D-battery oven crown area

Inspection of oven crown area looking for cracks, openings in crowns, uptake piers, holes in elbows, dampers and transitions.

Asset:	43624	BATTERY D
Location:	010D	BATTERY D

Sched Start:		Site:	IH	Job Plan:	9342
Sched Finish:		Priority:		Supervisor:	DWLEROUX
Target Start:	4/29/18	Work Type:	PM	Lead:	
Target Finish:	4/30/18	Status:	COMP	Crew:	
		Parent:			
		Failure Class:	OVEN		
Report Date:	4/24/18	Problem Code:			
Reported By:	KDGRAPER				
		GL Account:	311.50642.101.111.000.000.0000		
				Frequency: 30	Units: DAYS

Task IDs

Task ID	Description	Status
10	Obtain Permission to access battery	COMP
	Coordinate access to the oven crown area and make sure that pushing and charging is not occuring within the vicinity of the oven area being inspected. Complete SWP / STP for the site	
20	Perform Oven Exterior Inspection	COMP
	Perform oven exterior inspection in accordance with OV-PRO-0606--Oven Exterior Inspection Conditional Classification folllow the Severe, Moderate, Miniimal, and No Damage ranking system.	
30	Analysis and Reporting of the Results	COMP
	Analyze the crown data collected during the inspection and tabulate results into Oven Refractory Exterior Report	
40	Enter WO's for Severe Classification Conditions Recorded	COMP
	Enter WO's for Severe Classification Conditions Recorded during exterior inspection	

Planned Labor

Task ID	Craft	Skill Level	Labor	Vendor	Contract	Qty	Hours	Rate	Line Cost
10	OVENINSP					1	00:15	0.00	0.00

ATTACHMENT G – METHOD 9 INSPECTION FORM

SEC Method 9 VE Inspection Form

Date: ______________
Source: ______________
Observ. began: ______________
Observ. ended: ______________
Observed from: ______________
Distance to source: ______________ feet
Direction to source: ______________
****

Height of source: ______________
Vert. angle to source: **************
Plum type: Attached

	Beginning	End
Emissions color:	*See comments*	*See comments*
Background color:		
Sky condition:		
Wind speed:		
Wind direction:		
Ambient temp.:		
Wet bulb temp.:	*************	*************
Rel. humidity %:		

Sheet: ______ of ______

Comments	0	15	30	45				0	15	30	45		Comments
						0	30						
						1	31						
						2	32						
						3	33						
						4	34						
						5	35						
						6	36						
						7	37						
						8	38						
						9	39						
						10	40						
						11	41						
						12	42						
						13	43						
						14	44						
						15	45						
						16	46						
						17	47						
						18	48						
						19	49						
						20	50						
						21	51						
						22	52						
						23	53						
						24	54						
						25	55						
						26	56						
						27	57						
						28	58						
						29	59						

Observers signature

Additional info.(include steam dissipation point if applicable):

____
____
____
____
____
____

SEC Method 9 VE Inspection Form

Attachment G (CONTINUED) – Method 9 INSPECTION FORM

USEPA METHOD 9
Criteria Determination

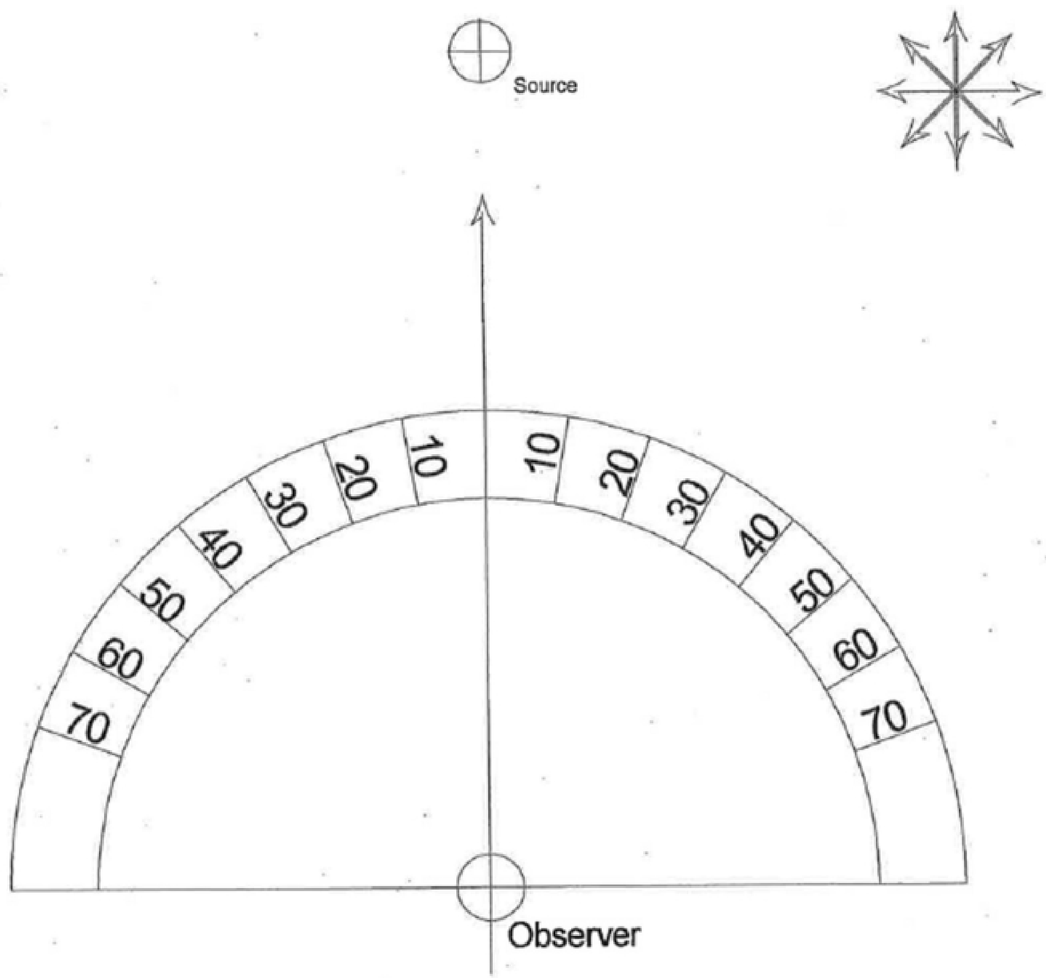
Date: ____________

Observer: ________________

Time Begin: ________

Time End: ________

Source Data:
____
____
____
____



Sun Visible During Inspection Yes ☐ No ☐

ATTACHMENT H – IHCC COKE OVEN LEAK RECORD

Use Only Blue or Black Ink

IHCC COKE OVEN LEAK RECORD

SunCoke Energy

DATE:

Coke Oven Leaks must be extinguished in: 15 min P/S; 45 min C/S; 30 min Crown

Record all times in 24 hour format		PUSHER SIDE (P/S)		COKE SIDE (C/S)		CORRECTIVE ACTIONS & CAUSE OF LEAK
OVEN	TIME LEAK NOTICED	DOOR LEAK	Leak Out Time	DOOR LEAK	Leak Out Time	WHAT WAS DONE TO CORRECT THE DOOR LEAK? WHAT WAS THE POTENTIAL CAUSE OF THE DOOR LEAK?
B44	12:45 PM	Y // N	6:35 PM	Y // N		Sole flues plugged & uptake blocked stuck / adjusted door dampers
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		
		Y // N		Y // N		

☐ No coke oven leaks were observed today (check this box if no coke oven leaks were observed)

For every coke oven leak, record the oven #, the time the door leak was noticed; and the time it was corrected. List the corrective actions that were taken and indicate if adverse wind conditions existed in the "Comments" section.
If you are the person who notices the door leak and calls the CCR operator, YOU are responsible for ensuring that the door leak is recorded.
Coke oven door leaks can be recorded on push reports or product tech coke oven leak record reports.

NOTE - Coke oven leaks are visible emissions that occur from the crown or a door's top, sides, dampers, or holes.

Product Technician IHCC COKE OVEN LEAK RECORDS must be submitted to the Shift Supervisor at the end of the DAY

Revised 06/22/2018

ATTACHMENT I – IHCC COKE OVEN CHECKLIST AND COKE OVEN LEAK RECORD SHEET

__________ Battery Ovens - IHCC COKE OVEN CHECKLIST INSPECTION RECORD

DATE: __________ SHIFT: __________

Supervisor Signature ______________________________

Your signature indicates that all doors and crowns were inspected on

SunCoke Energy

Daily Inspection:
1. Inspect door and crown for leaks on the push side from the Pad
2. Inspect door leaks on the coke side from inside the shed
3. Inspect for leaks on the shed from the road
4. Inspect the uptakes of ovens to be charged prior to push to verify they can open to a minimum of 8" and able to close

Use Only Blue or Black Ink

OVEN #	Time of Inspection (AM or PM)	INITIALS	PUSHER SIDE	COKE SIDE	COKE SIDE	Uptake Functionality?		COMMENTS
			Inspect from Pad	Inside Shed	Outside Shed (from road)	30 - 60 minutes prior to production		Are there any uptakes not moving properly? Are all the thermocouples working? Are the door seating properly?
						Push	Coke	
E1	11:23 PM	JEB	X	X	X	Y // N	Y // N	Coke side damper stuck at 6. Thermocouple on P/S out
1						Y // N	Y // N	
2						Y // N	Y // N	
3						Y // N	Y // N	
4						Y // N	Y // N	
5						Y // N	Y // N	
6						Y // N	Y // N	
7						Y // N	Y // N	
8						Y // N	Y // N	
9						Y // N	Y // N	
10						Y // N	Y // N	
11						Y // N	Y // N	
12						Y // N	Y // N	
13						Y // N	Y // N	
14						Y // N	Y // N	
15						Y // N	Y // N	
16						Y // N	Y // N	
17						Y // N	Y // N	
18						Y // N	Y // N	
19						Y // N	Y // N	
20						Y // N	Y // N	
21						Y // N	Y // N	
22						Y // N	Y // N	
23						Y // N	Y // N	
24						Y // N	Y // N	
25						Y // N	Y // N	
26						Y // N	Y // N	
27						Y // N	Y // N	
28						Y // N	Y // N	
29						Y // N	Y // N	
30						Y // N	Y // N	
31						Y // N	Y // N	
32						Y // N	Y // N	
33						Y // N	Y // N	
34						Y // N	Y // N	
35						Y // N	Y // N	
36						Y // N	Y // N	
37						Y // N	Y // N	
38						Y // N	Y // N	
39						Y // N	Y // N	
40						Y // N	Y // N	
41						Y // N	Y // N	
42						Y // N	Y // N	
43						Y // N	Y // N	
44						Y // N	Y // N	
45						Y // N	Y // N	
46						Y // N	Y // N	
47						Y // N	Y // N	
48						Y // N	Y // N	
49						Y // N	Y // N	
50						Y // N	Y // N	
51						Y // N	Y // N	
52						Y // N	Y // N	
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57						Y // N	Y // N	
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59						Y // N	Y // N	
60						Y // N	Y // N	
61						Y // N	Y // N	
62						Y // N	Y // N	
63						Y // N	Y // N	
64						Y // N	Y // N	
65						Y // N	Y // N	
66						Y // N	Y // N	
67						Y // N	Y // N	

Product Technician to initial in the box provided if there were no Door/Crown Leaks observed during your shift

☐ There were no Door/Crown Leaks observed during my shift

SUBMIT TO THE ENVIRONMENTAL DEPARTMENT AT THE END OF SHIFT

ALL OVENS THAT ARE OUT OF SERVICE SHOULD BE MARK AS "OOS" OR "EMPTY" OR "MAINTENANCE HOLD"
ENSURE THAT UPTAKES ARE CLOSED FOR ALL OUT OF SERVICE OVENS

Revised 06/22/2018

ATTACHMENT I (CONTINUED) – IHCC COKE OVEN CHECKLIST AND COKE OVEN LEAK RECORD SHEET

__________ Battery Ovens - IHCC COKE OVEN LEAK RECORD

DATE: __________ SHIFT: ____________

Supervisor Signature ______________________________________

Your signature indicates that all door and crown leaks observed on on the battery were recorded during your shift and all Method 9 readings were collected as required.

SunCoke Energy

1. For every Door / Crown Leak, you must record the oven #, the times the leak was noticed and corrected, the potential cause & the corrective actions.
2. If a Crown Leak lasts more than 30 minutes, you must take a Method 9 Reading immediately (Refer to Method 9 sheet for instructions).
3. All Team Leaders must initial for each Door/Crown Leak recorded and sign in the designated area.

Use Only Blue or Black Ink

OVEN #	TIME FIRE NOTICED (AM or PM)	INITIALS	PUSHER SIDE	COKE SIDE	CROWN		Wind Related?	Uptake Open?	Method 9 Reading Required? (Crown Leak >30 min)	Method 9 Reading Conducted?	Reasons for not conducting Method 9 (i.e. Sun Compliance)	Potential Cause & Corrective Actions
			Leak End Time Target: <15 minutes	Leak End Time Target: <45 minutes	Leak End Time Target: <30 minutes							What is the cause of the leak? What was done to correct the leak?
					Push Side	Coke Side						
E50	11:54 AM	JEB	12:05 PM	—	12:45 PM		Y // N	Y // N	Y // N	Y // N		Sole flue dampers adjusted, Increase draft Crown not properly sealed
							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		
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							Y // N	Y // N	Y // N	Y // N		
							Y // N	Y // N	Y // N	Y // N		

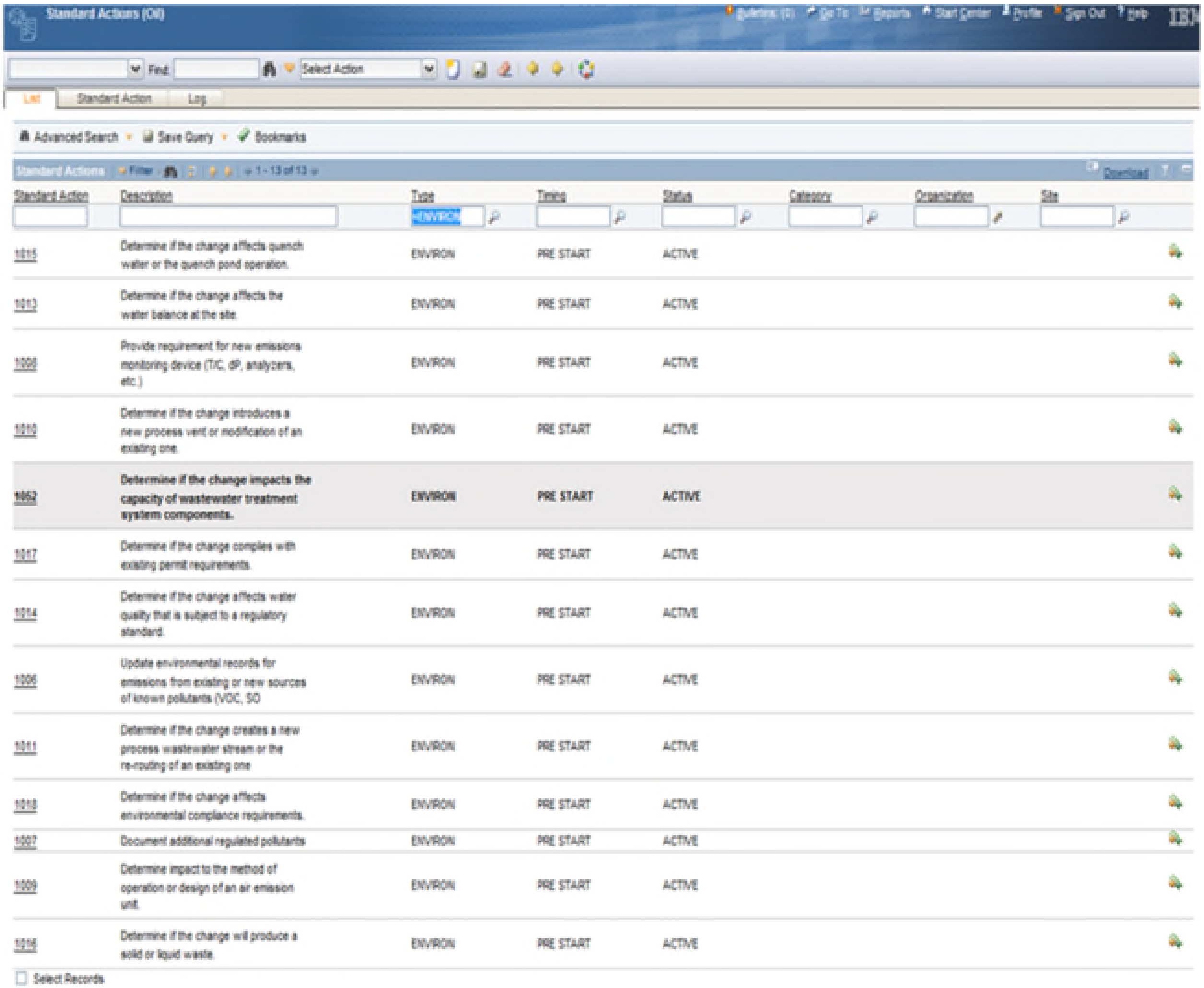
Wind Speed: ______________________

Wind Direction: ______________________

SUBMIT TO THE ENVIRONMENTAL DEPARTMENT AT THE END OF SHIFT

Revised 06/22/2018

ATTACHMENT J – ENVIRONMENTAL: MANAGEMENT OF CHANGE


Standard Actions (Oil)

Bulletins: (0) Go To Reports Start Center Profile Sign Out Help

Find Select Action

List Standard Action Log

Advanced Search Save Query Bookmarks

Standard Actions Filter 1 - 13 of 13 Download

Standard Action	Description	Type	Timing	Status	Category	Organization	Site
		=ENVIRON					
1015	Determine if the change affects quench water or the quench pond operation.	ENVIRON	PRE START	ACTIVE			
1013	Determine if the change affects the water balance at the site.	ENVIRON	PRE START	ACTIVE			
1008	Provide requirement for new emissions monitoring device (T/C, dP, analyzers, etc.)	ENVIRON	PRE START	ACTIVE			
1010	Determine if the change introduces a new process vent or modification of an existing one.	ENVIRON	PRE START	ACTIVE			
1052	**Determine if the change impacts the capacity of wastewater treatment system components.**	**ENVIRON**	**PRE START**	**ACTIVE**			
1017	Determine if the change complies with existing permit requirements.	ENVIRON	PRE START	ACTIVE			
1014	Determine if the change affects water quality that is subject to a regulatory standard.	ENVIRON	PRE START	ACTIVE			
1006	Update environmental records for emissions from existing or new sources of known pollutants (VOC, SO	ENVIRON	PRE START	ACTIVE			
1011	Determine if the change creates a new process wastewater stream or the re-routing of an existing one	ENVIRON	PRE START	ACTIVE			
1018	Determine if the change affects environmental compliance requirements.	ENVIRON	PRE START	ACTIVE			
1007	Document additional regulated pollutants	ENVIRON	PRE START	ACTIVE			
1009	Determine impact to the method of operation or design of an air emission unit.	ENVIRON	PRE START	ACTIVE			
1016	Determine if the change will produce a solid or liquid waste.	ENVIRON	PRE START	ACTIVE			

Select Records

ATTACHMENT K – PMO PLAN DOCUMENT CONTROL FORM

- *To be completed every time the PMO Plan is revised*
- *Provide reference to section(s) that have been revised under "Details of Revision"*

Issue	Date	Authorized	Details of Revision

Attachment D

IHCC Permit and Site-Specific SIP Revision Applications

SunCoke Energy

SunCoke Energy, Inc.
3210 Watling St
MC 2-990
East Chicago, IN 46312
219-378-3900 Phone
219-378-4590 Fax

January 4, 2019

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

RE: Indiana Harbor Coke Company Annual Bypass Venting Limits & Compliance Schedule – Minor Permit Modification

To Whom It May Concern:

Indiana Harbor Coke Company, LP (IHCC) owns and operates a metallurgical coke production facility located in East Chicago, Indiana. IHCC currently operates under Title V Operating Permit (TVOP) No. 089-30043-00382, issued December 20, 2011, as modified on March 15, 2016. TVOP No. 089-30043-00382 has an expiration date of December 20, 2016. However, IHCC submitted a timely and complete renewal permit application and thus continues to operate under TVOP No. 089-30043-00382 until the renewal permit is issued. With this letter, IHCC is requesting a minor permit modification to incorporate new annual bypass venting limits and a compliance schedule into the facility's TVOP.

BACKGROUND

A consent decree ("Consent Decree") between the United States, the State of Indiana, SunCoke Energy, Inc., IHCC, and Cokenergy, LLC was entered in the United States District Court for the Northern District of Indiana on October 25, 2018 (Civil Action No. 2:18-cv-00035). Pursuant to Paragraph 27.a. of the Consent Decree, by no later than ninety (90) days after the effective date of the Consent Decree, IHCC shall submit to IDEM an application in accordance with 326 IAC 2-7-12, to incorporate into its Title V operating permit; (1) the annual Bypass Venting limits in Paragraph 14 of the Consent Decree; and (2) a compliance schedule that consists of the terms and conditions set forth in Paragraphs 9 and 10 of the Consent Decree. Therefore, IHCC is requesting a minor permit modification to incorporate the new annual bypass venting limits and a compliance schedule into the TVOP.

The new annual bypass venting limits are provided in Paragraph 14 of the Consent Decree, as follows:

a. *From January 1, 2017, through December 31, 2019, a maximum of 12% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis.*

b. *Beginning January 1, 2020, a maximum of 13% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis.*
c. *Exception to Paragraph b. Beginning on January 1, 2020, if Cokenergy undertakes HRSG [Heat Recovery Steam Generators] retubing, then in that calendar year a maximum of 14% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis, provided the bypass venting percentage resulting from HRSG retubing accounts for at least 3.25% annual bypass venting. Bypass venting resulting from tube leaks, inspections, routine cleaning or maintenance, or unplanned HRSG outages shall not count in calculating the bypass venting percentage resulting from HRSG retubing.*

Please note that IHCC submitted a letter to IDEM on December 19, 2018 requesting a site-specific revision to the Indiana State Implementation Plan to incorporate the annual bypass venting limits listed above. The proposed modification to Section D.1.9 of the TVOP is provided in Appendix A. Text that is proposed to be removed from the permit is noted using ~~strikethrough text~~ and new text is noted using underlined text.

The compliance schedule consisting of the terms and conditions provided in Paragraphs 9 and 10 of the Consent Decree should state as follows:

Pursuant to the consent decree ("Consent Decree") between the United States, the State of Indiana, SunCoke Energy, Inc., IHCC, and Cokenergy, LLC entered in the United States District Court for the Northern District of Indiana on October 25, 2018 (Civil Action No. 2:18-cv-00035):

(a) IHCC completed all oven rebuilds for Batteries A, C, and D by December 31, 2018 in accordance with Paragraph 9 of the Consent Decree.
(b) IHCC completed five oven rebuilds for Battery B by March 31, 2017 and determined they were successful by March 31, 2018 in accordance with Paragraph 10 of the Consent Decree.
(c) IHCC notified EPA and IDEM that the Battery B oven rebuilds were successful by April 30, 2018 in accordance with Paragraph 10.a of the Consent Decree.
(d) EPA approved IHCC's determination that the Battery B oven rebuilds were successful in a letter dated May 29, 2018 in accordance with Paragraph 10.a of the Consent Decree.
(e) IHCC shall complete all Battery B oven rebuilds or idle any Battery B ovens that will not be rebuilt by November 30, 2019 in accordance with Paragraph 10.a.i of the Consent Decree.

To incorporate the compliance schedule for oven rebuilds described above into the TVOP, Section D.1.23 *Oven Rebuilds Compliance Schedule* [Civil Action No. 2:18-cv-00035] will need to be added. The proposed Section D.1.23 is provided in Appendix A. New text is noted using underlined text.

MINOR PERMIT MODIFICATION (326 IAC 2-7-12)

Pursuant to 326 IAC 2-7-12(b)(1), minor permit modifications may be used only for permit modifications that meet the following criteria.

- The change does not violate any applicable requirement;
- The change does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in a Part 70 permit;

- The change does not seek to establish or change a Part 70 permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject;
- The change is not a modification under Title I of the Clean Air Act; and
- The change is not otherwise required to be processed as a significant modification.

The proposed changes do not violate any applicable requirement or involve significant changes to existing monitoring, reporting, or recordkeeping requirements in a Part 70 permit. Additionally, the proposed changes do not seek to establish or change a Part 70 permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. These changes do not constitute a Title I modification or a significant modification. Therefore, this project qualifies as a minor permit modification. Required state forms are included in Attachment B.

SUMMARY

As described above, IHCC requests a minor permit modification pursuant to 326 IAC 2-7-12 to incorporate new annual bypass venting limits and a compliance schedule into the TVOP.

If you have any questions regarding this application, please feel free to call me at (219) 378-3968 or email me at jlkirby@suncoke.com.

Sincerely,

Justin L. Kirby
Environmental Manager

Attachments

cc:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-08555/1

Compliance Tracker
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency – Region 5
77 West Jackson Blvd. AE-18J
Chicago, IL 60604-3590

Phil Perry
Indiana Department of Environmental Management
Chief, Air Compliance and Enforcement Branch
100 North Senate Avenue
MC-61-53, IGCN 1003
Indianapolis, IN 46204-2251

Air Enforcement Division Director
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW Mail Code: 2242A
Washington, DC 20460

Susan Tennenbaum
U.S. Environmental Protection Agency - Region 5
C-14J
77 West Jackson Blvd
Chicago, IL 60604

Elizabeth A. Zlatos
Indiana Department of Environmental Management
Office of Legal Counsel
100 North Senate Avenue
MC-60-01, IGCN 1307
Indianapolis, IN 46204-2251

East Chicago Public Library
2401 E. Columbus Drive
East Chicago, Indiana 46312

East Chicago Public Library
1008 W. Chicago Avenue
East Chicago, Indiana 46312

Luke Ford
lford@primaryenergy.com

Electronic Copies to:
R5airenforcement@epa.gov
tennenbaum.susan@epa.gov
bzlatos@idem.in.gov

ATTACHMENT A

TVOP Revisions

D.1.9 Sulfur Dioxide Limit [326 IAC 7-4.1-8]

Pursuant to 326 IAC 7-4.1-8:

(a) IHCC (Indiana Harbor Coke Company L.P.), Source ID # 382, shall comply with the sulfur dioxide emission limits in pounds per ton, pounds per hour and other requirements as follows:

(1) IHCC Coal Carbonization charging shall be limited to 0.0069 lb/ton each and 1.57 lb/hr total.
(2) IHCC Coal Carbonization pushing shall be limited to 0.0084 lb/ton and 1.96 lb/hr.
(3) IHCC Coal Carbonization quenching shall be limited to 0.0053 lb/ton and 1.322 lb/hr total.
(4) IHCC Coal Carbonization thaw shed, identified as ES209 shall be limited to 0.0006 lb/1,000 cubic feet natural gas and 0.015 pound per hour.
(5) IHCC Vent Stacks (16 total) in combination with Cokenergy LLC's heat recovery coke carbonization was gas stack identified as Stack ID 201 shall be limited to 1,656 lbs/hr total for a 24 hour average.

(b) The coke ovens shall recycle the gases emitted during the coking process and utilize it as the only fuel source for the ovens during normal operations. The gases shall not be routed directly to the atmosphere unless they first pass through the common tunnel afterburner. A maximum of nineteen percent (19%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere on a twenty-four (24) hour basis ~~and fourteen percent (14%) on an annual basis~~.

(c) A maximum of twelve percent (12%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis from January 1, 2017 through December 31, 2019. A maximum of thirteen percent (13%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis beginning on January 1, 2020.

(1) Exception to Paragraph D.1.9(c): Beginning on January 1, 2020, if Cokenergy undertakes heat recovery steam generator (HRSG) retubing, then in that calendar year a maximum of 14% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis, provided the bypass venting percentage resulting from HRSG retubing accounts for at least 3.25% annual bypass venting. Bypass venting resulting from tube leaks, inspections, routine cleaning or maintenance, or unplanned HRSG outages shall not count in calculating the bypass venting percentage resulting from HRSG retubing.

D.1.23 Oven Rebuilds Compliance Schedule [Civil Action No. 2:18-cv-00035]

Pursuant to the consent decree ("Consent Decree") between the United States, the State of Indiana, SunCoke Energy, Inc., Indiana Harbor Coke Company, and Cokenergy, LLC entered in the United States District Court for the Northern District of Indiana on October 25, 2018 (Civil Action No. 2:18-cv-00035):

(a) IHCC completed all oven rebuilds for Batteries A, C, and D by December 31, 2018 in accordance with Paragraph 9 of the Consent Decree.

(b) IHCC completed five oven rebuilds for Battery B by March 31, 2017 and determined they were successful by March 31, 2018 in accordance with Paragraph 10 of the Consent Decree.

(c) IHCC notified EPA and IDEM that the Battery B oven rebuilds were successful by April 30, 2018 in accordance with Paragraph 10.a of the Consent Decree.

(d) EPA approved IHCC's dete mination that the Battery B oven rebuilds were successful in a letter dated May 29, 2018 in accordance with Paragraph 10.a of the Consent Decree.

(e) IHCC shall complete all Battery B oven rebuilds or idle any Battery B ovens that will not be rebuilt by November 30, 2019 in accordance with Paragraph 10.a.i of the Consent Decree.

ATTACHMENT B

Required State Forms

AIR PERMIT APPLICATION COVER SHEET

State Form 50639 (R4 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of this cover sheet is to obtain the core information needed to process the air permit application. This cover sheet is required for all air permit applications submitted to IDEM, OAQ. Place this cover sheet on top of all subsequent forms and attachments that encompass your air permit application packet.
- Submit the completed air permit application packet, including all forms and attachments, to **IDEM Air Permits Administration** using the address in the upper right hand corner of this page.
- IDEM will send a bill to collect the filing fee and any other applicable fees.
- Detailed instructions for this form are available on the Air Permit Application Forms website.

FOR OFFICE USE ONLY
PERMIT NUMBER:
_ _
DATE APPLICATION WAS RECEIVED:

1. Tax ID Number: 232866196

PART A: Purpose of Application

Part A identifies the purpose of this air permit application. For the purposes of this form, the term "source" refers to the plant site as a whole and NOT to individual emissions units.

2. Source / Company Name: Indiana Harbor Coke Company L.P. **3. Plant ID:** 089 – 0382

4. Billing Address: 3210 Watling Street, MC 2-990

City: East Chicago **State:** IN **ZIP Code:** 46312 –

5. Permit Level: ☐ Exemption ☐ Registration ☐ SSOA ☐ MSOP ☐ FESOP ☒ TVOP ☐ PBR

6. Application Summary: *Check all that apply. Multiple permit numbers may be assigned as needed based on the choices selected below.*

☐ Initial Permit ☐ Renewal of Operating Permit ☐ Asphalt General Permit
☐ Review Request ☐ Revocation of Operating Permit ☐ Alternate Emission Factor Request
☐ Interim Approval ☐ Relocation of Portable Source ☐ Acid Deposition (Phase II)
☐ Site Closure ☐ Emission Reduction Credit Registry

☐ Transition (between permit levels) *From:* *To:*

☐ Administrative Amendment: ☐ *Company Name Change* ☐ *Change of Responsible Official*
☐ *Correction to Non-Technical Information* ☐ *Notice Only Change*
☐ *Other (specify):*

☒ Modification: ☐ *New Emission Unit or Control Device* ☐ *Modified Emission Unit or Control Device*
☐ *New Applicable Permit Requirement* ☐ *Change to Applicability of a Permit Requirement*
☐ *Prevention of Significant Deterioration* ☐ *Emission Offset* ☐ *MACT Preconstruction Review*
☐ *Minor Source Modification* ☐ *Significant Source Modification*
☒ *Minor Permit Modification* ☐ *Significant Permit Modification*
☐ *Other (specify):*

7. Is this an application for an initial construction and/or operating permit for a **"Greenfield" Source**? ☐ Yes ☒ No

8. Is this an application for construction of a new emissions unit at an **Existing Source**? ☐ Yes ☒ No

Continued on Next Page

PART B: Pre-Application Meeting

Part B specifies whether a meeting was held or is being requested to discuss the permit application.

9. Was a meeting held between the company and IDEM prior to submitting this application to discuss the details of the project?

☒ No ☐ Yes: *Date:*

10. Would you like to schedule a meeting with IDEM management and your permit writer to discuss the details of this project?

☒ No ☐ Yes: *Proposed Date for Meeting:*

PART C: Confidential Business Information

Part C identifies permit applications that require special care to ensure that confidential business information is kept separate from the public file.

Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in the Indiana Administrative Code (IAC). To ensure that your information remains confidential, refer to the IDEM, OAQ information regarding submittal of confidential business information. For more information on confidentiality for certain types of business information, please review IDEM's Nonrule Policy Document Air-031-NPD regarding Emission Data.

11. Is any of the information contained within this application being claimed as **Confidential Business Information**?

☒ No ☐ Yes

PART D: Certification Of Truth, Accuracy, and Completeness

Part D is the official certification that the information contained within the air permit application packet is truthful, accurate, and complete. Any air permit application packet that we receive without a signed certification will be deemed incomplete and may result in denial of the permit.

For a Part 70 Operating Permit (TVOP) or a Source Specific Operating Agreement (SSOA), a "responsible official" as defined in 326 IAC 2-7-1(34) must certify the air permit application. For all other applicants, this person is an "authorized Individual" as defined in 326 IAC 2-1.1-1(1).

☒ *I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.*

Patrick Nigl	General Manager
Name *(typed)*	Title
P. H. Nigl	Jan 4, 2019
Signature	Date

OAQ GENERAL SOURCE DATA APPLICATION
GSD-01: Basic Source Level Information

State Form 50640 (R5 / 1-10)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch
100 N. Senate Avenue, MC 61-53 Room 1003
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
Facsimile Number: (317) 232-6749
www.IN.gov/idem

NOTES:

- The purpose of GSD-01 is to provide essential information about the entire source of air pollutant emissions. GSD-01 is a required form.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

PART A: Source / Company Location Information

1. **Source / Company Name**: Indiana Harbor Coke Company L.P. — 2. **Plant ID**: 089 – 00382

3. **Location Address**: 3210 Watling Street, MC 2-990

City: East Chicago — **State**: IN — **ZIP Code**: 46312 –

4. **County Name**: Lake — 5. **Township Name**: North

6. **Geographic Coordinates**:
Latitude: 41.68 — **Longitude**: -87.42

7. **Universal Transferal Mercadum Coordinates** *(if known)*:
Zone: 16 — **Horizontal**: 465291 — **Vertical**: 4614579

8. **Adjacent States**: Is the source located within 50 miles of an adjacent state?
☐ No ☒ Yes – *Indicate Adjacent State(s):* ☒ Illinois (IL) ☒ Michigan (MI) ☐ Ohio (OH) ☐ Kentucky (KY)

9. **Attainment Area Designation**: Is the source located within a non-attainment area for any of the criteria air pollutants?
☐ No ☒ Yes – *Indicate Nonattainment Pollutant(s):* ☐ CO ☐ Pb ☐ NO_x ☒ O_3 ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ SO_2

10. **Portable / Stationary**: Is this a portable or stationary source? ☐ Portable ☒ Stationary

PART B: Source Summary

11. **Company Internet Address** *(optional)*:

12. **Company Name History**: Has this source operated under any other name(s)?
☐ No ☒ Yes – *Provide information regarding past company names in Part I, Company Name History.*

13. **Portable Source Location History**: Will the location of the portable source be changing in the near future?
☒ Not Applicable ☐ No ☐ Yes – *Complete Part J, Portable Source Location History, and Part K, Request to Change Location of Portable Source.*

14. **Existing Approvals**: Have any exemptions, registrations, or permits been issued to this source?
☐ No ☒ Yes – *List these permits and their corresponding emissions units in Part M, Existing Approvals.*

15. **Unpermitted Emissions Units**: Does this source have any unpermitted emissions units?
☒ No ☐ Yes – *List all unpermitted emissions units in Part N, Unpermitted Emissions Units.*

16. **New Source Review**: Is this source proposing to construct or modify any emissions units?
☒ No ☐ Yes – *List all proposed new construction in Part O, New or Modified Emissions Units.*

17. **Risk Management Plan**: Has this source submitted a Risk Management Plan?
☒ Not Required ☐ No ☐ Yes → Date submitted: EPA Facility Identifier: – –

Continued on Next Page

PART C: Source Contact Information

IDEM will send the original, signed permit decision to the person identified in this section. This person MUST be an employee of the permitted source.

18. Name of Source Contact Person: Justin L. Kirby		
19. Title *(optional)*: Environmental Manager		
20. Mailing Address: 3210 Watling Street, MC 2-990		
City: East Chicago	**State**: IN	**ZIP Code**: 46312 –
21. Electronic Mail Address *(optional)*: jlkirby@suncoke.com		
22. Telephone Number: (219) 378 – 3968	**23. Facsimile Number** *(optional)*: ( ) –	

PART D: Authorized Individual/Responsible Official Information

IDEM will send a copy of the permit decision to the person indicated in this section, if the Authorized Individual or Responsible Official is different from the Source Contact specified in Part C.

24. Name of Authorized Individual or Responsible Official: Pat Nigl		
25. Title: General Manager		
26. Mailing Address: 3210 Watling Street, MC 2-990		
City: East Chicago	**State**: IN	**ZIP Code**: 46312 –
27. Telephone Number: (219) 397 – 3902	**28. Facsimile Number** *(optional)*: (219) 397 – 4560	

29. Request to Change the Authorized Individual or Responsible Official: Is the source officially requesting to change the person designated as the Authorized Individual or Responsible Official in the official documents issued by IDEM, OAQ? *The permit may list the title of the Authorized Individual or Responsible Official in lieu of a specific name.*

☒ No ☐ Yes – ***Change Responsible Official to***:

PART E: Owner Information

30. Company Name of Owner: Indiana Harbor Coke Company L.P.		
31. Name of Owner Contact Person: Patrick Nigl		
32. Mailing Address: 3210 Watling Street, MC 2-990		
City: East Chicago	**State**: IN	**ZIP Code**: 46312 –
33. Telephone Number: (219) 378 – 3902	**34. Facsimile Number** *(optional)*: (219) 397 – 4560	

34. Operator: Does the "Owner" company also operate the source to which this application applies?

☐ No – *Proceed to Part F below.* ☒ Yes – *Enter "SAME AS OWNER" on line 35 and proceed to Part G below.*

PART F: Operator Information

35. Company Name of Operator: SAME AS OWNER		
36. Name of Operator Contact Person:		
37. Mailing Address:		
City:	**State**:	**ZIP Code**: –
38. Telephone Number: ( ) –	**39. Facsimile Number** *(optional)*: ( ) –	

Continued on Next Page

PART G: Agent Information

40. Company Name of Agent: Trinity Consultants

41. Type of Agent: ☒ Environmental Consultant ☐ Attorney ☐ Other (specify):

42. Name of Agent Contact Person: D.J. Wheeler

43. Mailing Address: 110 Polaris Parkway Suite 200

City: Westerville | **State**: OH | **ZIP Code**: 43082 –

44. Electronic Mail Address *(optional)*: dwheeler@trinityconsultants.com

45. Telephone Number: (614) 433 – 0733 | **46. Facsimile Number** *(optional)*: (   ) –

47. Request for Follow-up: Does the "Agent" wish to receive a copy of the preliminary findings during the public notice period (if applicable) and a copy of the final determination? ☐ No ☒ Yes

PART H: Local Library Information

48. Date application packet was filed with the local library: Within 10 days of application submittal

49. Name of Library: East Chicago Public Library

50. Name of Librarian *(optional)*:

51. Mailing Address: 2401 East Columbus Drive

City: East Chicago | **State**: IN | **ZIP Code**: 46312 –

52. Internet Address *(optional)*:

53. Electronic Mail Address *(optional)*:

54. Telephone Number: (219) 397 – 2453 | **55. Facsimile Number** *(optional)*: (   ) –

PART I: Company Name History *(if applicable)*

Complete this section only if the source has previously operated under a legal name that is different from the name listed above in Section A.

56. Legal Name of Company	57. Dates of Use
Indiana Harbor Coke Company	1/1/1998 to 5/15/2012
Indiana Harbor Coke Company L.P.	5/16/2012 to Present
	to
	to
	to
	to
	to
	to
	to
	to

58. Company Name Change Request: Is the source officially requesting to change the legal name that will be printed on all official documents issued by IDEM, OAQ?

☒ No ☐ Yes – ***Change Company Name to***:

Continued on Next Page

PART J: Portable Source Location History *(if applicable)*

Complete this section only if the source is portable and the location has changed since the previous permit was issued. The current location of the source should be listed in Section A.

59. Plant ID	60. Location of the Portable Source	61. Dates at this Location
–	N/A	to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to
–		to

PART K: Request to Change Location of Portable Source *(if applicable)*

Complete this section to request a change of location for a portable source.

62. Current Location:

Address: N/A

City: | **State**: | **ZIP Code**: –

County Name:

63. New Location:

Address: N/A

City: | **State**: | **ZIP Code**: –

County Name:

Continued on Next Page

PART L: Source Process Description

Complete this section to summarize the main processes at the source.

64. Process Description	65. Products	66. SIC Code	67. NAICS Code
Coal Carbonization	Metallurgical Coke	3312	331110

PART M: Existing Approvals *(if applicable)*

Complete this section to summarize the approvals issued to the source since issuance of the main operating permit.

68. Permit ID	69. Emissions Unit IDs	70. Expiration Date
36803 -------- 36826, 36027, 35127, 35070, 34803, 31755	Title V Minor Source Modification -------- Title V Administrative Amendment	12/20/2016
34392, 34278, 33376	Title V Significant Permit Modification	12/20/2016
34322	Title V Significant Source Mod. (Minor PSD/EO)	12/20/2016
34226	Title V Minor Source Modification	12/20/2016
30043	Title V Renewal	12/20/2016

PART N: Unpermitted Emissions Units *(if applicable)*

Complete this section only if the source has emission units that are not listed in any permit issued by IDEM, OAQ.

71. Emissions Unit ID	72. Type of Emissions Unit	73. Actual Dates		
		Began Construction	Completed Construction	Began Operation
	N/A			

PART O: New or Modified Emissions Units *(if applicable)*

Complete this section only if the source is proposing to add new emission units or modify existing emission units.

74. Emissions Unit ID	75. NEW	76. MOD	77. Type of Emissions Unit	78. Estimated Dates		
				Begin Construction	Complete Construction	Begin Operation
			N/A			

Continued on Next Page

SunCoke Energy

December 19, 2018

Keith Baugues
Assistant Commissioner
Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204-2251

Nancy King
Assistant Commissioner
Indiana Department of Environmental Management
Office of Legal Counsel
100 North Senate Avenue
Indianapolis, IN 46204-2251

RE: Application for Site-Specific Revision to Indiana State Implementation Plan

Dear Mr. Baugues and Ms. King:

Indiana Harbor Coke Company ("IHCC") and Cokenergy, LLC ("Cokenergy") hereby apply for a site-specific revision to the Indiana State Implementation Plan ("SIP") at 326 IAC 7-4.1-7 and 326 IAC 7-4.1-8 pursuant to Paragraph 27.b of the consent decree between the United States, the State of Indiana, IHCC, SunCoke Energy, Inc., and Cokenergy entered in the United States District Court for the Northern District of Indiana (Case No.: 2:18-cv-00035) on October 25, 2018 ("Consent Decree").

The Consent Decree requires that the Indiana SIP be modified to incorporate: (1) the annual bypass venting limits in Paragraph 14 of the Consent Decree; and (2) the requirement to operate and maintain a permanent flow monitor in Paragraph 19 of the Consent Decree (for Cokenergy only). We have attached a markup of the SIP with proposed changes consistent with these requirements and a copy of the Consent Decree.

We appreciate your assistance with this matter. If you have any questions, please contact me at (219) 378-3968 or jlkirby@suncoke.com.

Sincerely,

Justin L. Kirby
Environmental Manager

Attachments

cc:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-08555/1

Compliance Tracker
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency – Region 5
77 West Jackson Blvd. AE-18J
Chicago, IL 60604-3590

Phil Perry
Indiana Department of Environmental Management
Chief, Air Compliance and Enforcement Branch
100 North Senate Avenue
MC-61-53, IGCN 1003
Indianapolis, IN 46204-2251

Air Enforcement Division Director
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW Mail Code: 2242A
Washington, DC 20460

Susan Tennenbaum
U.S. Environmental Protection Agency - Region 5
C-14J
77 West Jackson Blvd
Chicago, IL 60640

Elizabeth A. Zlatos
Indiana Department of Environmental Management
Office of Legal Counsel
100 North Senate Avenue
MC-60-01, IGCN 1307
Indianapolis, IN 46204-2251

Electronic Copies to:
R5airenforcement@epa.gov
tennenbaum.susan@epa.gov
bzlatos@idem.in.gov

Luke Ford
lford@primaryenergy.com

SunCoke Energy

326 IAC 7-4.1-7 Cokenergy Inc. sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 7. (a) Cokenergy Inc., Source Identification Number 00383, shall comply with the sulfur dioxide emission limit in pounds per hour for the heat recovery coke carbonization waste gas stack, identified as Stack ID 201, combined with the sixteen (16) vents from the Indiana Harbor Coke Company of a twenty-four (24) hour average emission rate of one thousand six hundred fifty-six (1,656) pounds per hour.

(b) Cokenergy shall install, operate, and maintain a permanent flow monitor to continuously measure the flow rate in Stack ID 201.

(c) A maximum of twelve percent (12%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis from January 1, 2017 through December 31, 2019. A maximum of thirteen percent (13%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis beginning on January 1, 2020. Beginning on January 1, 2020, if Cokenergy undertakes heat recovery steam generator (HRSG) retubing, then in that calendar year a maximum of 14% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis, provided the bypass venting percentage resulting from HRSG retubing accounts for at least 3.25% annual bypass venting. Bypass venting resulting from tube leaks, inspections, routine cleaning or maintenance, or unplanned HRSG outages shall not count in calculating the bypass venting percentage resulting from HRSG retubing. (Air Pollution Control Division; 326 IAC 7-4.1-7; filed May 25, 2005, 10:50 a.m.: 28 IR 2957)

326 IAC 7-4.1-8 Indiana Harbor Coke Company sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 8. (a) Indiana Harbor Coke Company (IHCC), Source Identification Number 00382, shall comply with the sulfur dioxide emission limits in pounds per ton, pounds per hour, and other requirements as follows:

Emissions Unit Description	Emission Limit lbs/ton	Emission Limit lbs/hour
(1) IHCC Coal Carbonization Charging	0.0068 each	1.57 total
(2) IHCC Coal Carbonization Pushing	0.0084	1.96
(3) IHCC Coal Carbonization Quenching	0.0053	1.232 total
(4) IHCC Coal Carbonization Thaw Shed	0.0006 lbs/1,000 cubic feet natural gas	0.015
(5) IHCC Vent Stacks (16 total) in combination with Cokenergy's heat recovery coke carbonization waste gas stack identified as Stack ID 201		1,656 total for a 24 hour average

(b) The coke ovens shall recycle the gases emitted during the coking process and utilize it as the only fuel source for the ovens during normal operations. The gases shall not be routed directly to the atmosphere unless they first pass through the common tunnel afterburner. A maximum of nineteen percent (19%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere on a twenty-four (24) hour basis and fourteen percent (14%) on an annual basis.

(c) A maximum of twelve percent (12%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis from January 1, 2017 through December 31, 2019. A maximum of thirteen percent (13%) of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks on an annual basis beginning on January 1, 2020. Beginning on January 1, 2020, if Cokenergy undertakes heat recovery steam generator (HRSG) retubing, then in that calendar year a maximum of 14% of the coke oven waste gases leaving the common tunnel shall be allowed to be vented to the atmosphere through the bypass vent stacks, as determined on an annual basis, provided the bypass venting percentage resulting from HRSG retubing accounts for at least 3.25% annual bypass venting. Bypass venting resulting from tube leaks, inspections, routine cleaning or maintenance, or unplanned HRSG outages shall not count in calculating the bypass venting percentage resulting from HRSG retubing. (Air Pollution Control Division; 326 IAC 7-4.1-8; filed May 25, 2005, 10:50 a.m.: 28 IR 2957)

Attachment E

Quarterly Deviation and Compliance Monitoring Reports

&

Semi-annual and Annual Compliance Certifications

SunCoke Energy

SunCoke Energy, Inc.
3210 Watling St
MC 2-990
East Chicago, IN 46312
219-378-3900 Phone
219-378-4590 Fax

January 24, 2019

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204 – 2251

RE: Operating Permit Certification – Permit No. T089-30034-00382

Attached you will find Indiana Harbor Coke Company's (IHCC's) Part 70 Operating Permit Certification, Quarterly report for coal charged, and Quarterly Deviation and Compliance Monitoring Report for the 4th Quarter of 2018.

Sincerely,

Justin L. Kirby
Environmental Manager

cc:

Clifford Yukawa w/attachments
IDEM/Northwest Regional Office
330 W US Highway 30, Suite F
Valparaiso, IN 46385

Attachments:
Part 70 Operating Permit Certification
Quarterly Report for Coal Charged
Quarterly Deviation & Compliance Monitoring Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☒ Quarterly Report for 4th Quarter 2018

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature: Patrick H Nigl
Printed Name: Patrick Nigl
Title/Position: General Manager
Phone: (219) 378-3902
Date: January 24, 2019

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT SECTION

Part 70 Quarterly Report

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382
Source/Facility:	IHCC
Limit:	2,040,000 tons of dry coal charged per twelve (12) consecutive month period with compliance determined at the end of each month

Quarter: 4th **Year:** 2018

Month	12 Month Rolling Sum Tons of Coal Charged	1st Quarter Tons	2nd Quarter Tons	3rd Quarter Tons	4th Quarter Tons
January	1,178,385	109,456			
February	1,185,467	97,631			
March	1,191,662	111,145			
April	1,196,535		102,613		
May	1,206,156		105,086		
June	1,217,054		104,908		
July	1,229,422			107,269	
August	1,240,971			108,406	
September	1,258,652			109,861	
October	1,275,229				115,615
November	1,295,668				120,670
December	1,318,389				125,729

☒ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: Patrick Nigl
Title / Position: General Manager
Signature: Patrick A Nigl
Date: January 24, 2019
Phone: (219)-378-3902
Attached a signed certification to complete this report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE and ENFORCEMENT BRANCH

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382

Reporting Period: October 1, 2018 – December 31, 2018

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☒ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #): C.5(k)	
Date of Deviation: 10/07, 10/14, 10/21, 10/28, 11/04, 11/14, 11/19, 11/25, 12/02, 12/09, 12/16	**Duration of Deviation:** 22 3-minute averages
Number of Deviations: 22	
Probable Cause of Deviation: IHCC's certified Method 9 observer recorded fugitive visible emissions from charging operations exceeding the twenty percent (20%) opacity standard as a three (3) minute average.	
Response Steps Taken: In addition to rebuilding coke ovens, IHCC is continuing to implement an on-going oven maintenance and repair program.	

Permit Requirement (specify permit condition #): D.1.6(b)(1)	
Dates of Deviation: 10/08	**Duration of Deviation:** 1 3-minute average
Number of Deviations: 1	
Probable Cause of Deviation: IHCC's certified Method 9 observer recorded fugitive visible emissions from the shed exceeding the twenty percent (20%) opacity standard as a three (3) minute average.	
Response Steps Taken: In addition to rebuilding coke ovens, IHCC is continuing to implement an on-going oven maintenance and repair program as well repairing or replacing damaged shed panels.	

Permit Requirement (specify permit condition #): D.1.12(b)	
Dates of Deviation: 10/02, 10/08, 10/11, 10/13, 10/14, 10/16, 10/19 - 10/23, 10/26, 10/28, 10/29, 11/03, 11/05, 11/06, 11/08, 11/09, 11/11 - 11/14, 11/16, 11/18, 11/20 - 11/22, 11/24, 11/26 - 12/01, 12/03, 12/07, 12/09, 12/10, 12/12, 12/13, 12/15, 12/16, 12/17, 12/19, 12/20, 12/22 – 12/28, 12/30, 12/31	**Duration of Deviation:** Please see Table 1 (attached)
Number of Deviations: 92	
Probable Cause of Deviation: IHCC personnel recorded that certain oven dampers did not properly function to open when the charging process was initiated. Thus, they were not positioned to maximize draft (i.e. at the minimum position) during charging activities on 93 occasions during the reporting period. The uptake dampers are programmed to open fully once the charging sequence on an oven is initiated; however, in these instances, the dampers malfunctioned and were not able to fully open. For specific dates and oven numbers, please see the oven uptake information in Table 1 attached to this quarterly report. 84 of these deviations occurred on non-rebuilt coke ovens.	
Response Steps Taken: Personnel inspect all uptakes prior to pushing ovens to maximize proper operation. IHCC maintenance personnel execute a daily oven damper maintenance and repair program to ensure dampers are functional. Additionally, IHCC is installing a new damper positioning system as ovens are rebuilt to ensure dampers are able to function and be positioned to maximize draft during charging.	

Permit Requirement (specify permit condition #): D.1.13, D.1.18	
Dates of Deviation: 10/04 – 10/30, 11/01 – 12/31	**Duration of Deviation:** Please see Table 2 (attached)
Number of Deviations: 88 days	
Probable Cause of Deviation: For a total of 88 days, IHCC was unable to maintain 1200 to 2400 degree Fahrenheit temperature in the common tunnels on A and B Batteries. For A Battery, the low common tunnel temperatures are a result of on-going oven rebuilds. The temperatures are low because a number of ovens are offline as part of the rebuild process and, therefore, the overall heat load to the common tunnel is reduced. For B Battery, the low common tunnel temperatures are a result of multiple ovens out of service. For C Battery, the low common tunnel temperatures are a result of HRSG fouling by Cokenergy.	
Response Steps Taken: IHCC has taken several response measures to increase the common tunnel temperatures including installing gas lances in the ovens. IHCC is continuing to implement its on-going oven maintenance and repair program which will increase the common tunnel temperatures.	

Permit Requirement (specify permit condition #) E.2.2 (c)	
Dates of Deviation: 11/04, 11/06, 11/08, 11/19, 11/22, 11/23, 11/26, 11/28, 11/30, 12/03, 12/05, 12/08 – 12/10, 12/12 – 12/18, 12/22, 12/23 – 12/25, 12/27, 12/28, 12/30, 12/31	**Duration of Deviation:** Varies
Number of Deviations: 34	
Probable Cause of Deviation: On 34 occasions, IHCC personnel observed positive pressure on B, C and/or D Battery common tunnel attributable to inadequate condensation drainage in the differential pressure cell line, weather, fluctuating process conditions involving the ovens, and the heat recovery steam generators (HRSGs).	
Response Steps Taken: IHCC operations personnel monitor oven conditions to maintain negative draft within the common tunnel. Cleaning and maintenance has been performed on the common tunnel that is expected to improve the performance of the pressure gauges measuring tunnel draft.	

Permit Requirement (specify permit condition #) E.2.2 (c)	
Dates of Deviation: 10/01 – 11/30, 12/02 – 12/31	**Duration of Deviation:** Please see Table 3 (attached)
Number of Deviations: 854	
Probable Cause of Deviation: Door fires that occurred during the reporting period and lasted longer than 15 minutes on the push side or 45 minutes on coke side are the result of aging non-rebuilt coke ovens. Corrective actions were taken, but operators were unable to stop the leaks within the allowed 15 minutes or 45 minutes on certain ovens for the dates mentioned above. 842 of the 854 deviations occurred on aging non-rebuilt coke ovens. 12 deviations occurred on rebuilt ovens; 4 of which are related to on-going maintenance that were resolved as quickly as possible, 7 are related to insufficient/low draft due to HRSG fouling and oven location related to the HRSG, and 1 is related to a coke oven door not being properly seated.	
Response Steps Taken: IHCC personnel monitor and perform all necessary mitigation steps to reduce the door leak as much as practicable. In addition to rebuilding coke ovens, IHCC is in the process of completing an on-going oven maintenance and repair program, which includes inspecting and cleaning the common tunnel to maintain sufficient draft.	

Signature:

Form Completed By: **Justin L. Kirby**
Title/Position: **Environmental Manager**
Phone: **(219)-378-3968**
Date: **January 24, 2019**

Attachments:

Table 1: D.1.12(b) - Uptake damper position indicated closed following the charge of the oven:

Incident Date / Time	Description / Asset
10/2/2018	B39
10/8/2018	B(23, 26, 29, 41)
10/11/2018	A42
10/13/2018	B(20, 21)
10/14/2018	B39
10/16/2018	B26
10/19/2018	B46
10/20/2018	B(40, 63)
10/21/2018	B60
10/22/2018	B(19, 21, 24, 46)
10/23/2018	B23
10/26/2018	B46
10/28/2018	B46
10/29/2018	A50
11/3/2018	B(19, 46)
11/5/2018	B46
11/6/2018	B60
11/8/2018	B46
11/9/2018	B35
11/11/2018	A9, B45
11/12/2018	B35
11/13/2018	B45
11/14/2018	B35
11/16/2018	B(35, 41, 45)
11/18/2018	B35
11/20/2018	D57
11/21/2018	B45
11/22/2018	B27
11/24/2018	B(35, 45)
11/26/2018	B(34, 35)
11/27/2018	B40
11/28/2018	B45
11/29/2018	B(34,43)
11/30/2018	B40
12/1/2018	B45
12/3/2018	B40
12/7/2018	B(31,34), C9
12/9/2018	B43
12/10/2018	B(34,40,45)
12/12/2018	D40
12/13/2018	B10
12/15/2018	B(34, 60)
12/16/2018	B43
12/17/2018	B(34,40)
12/19/2018	A64, B45

12/20/2018	B(16, 34, 43)
12/22/2018	B45
12/23/2018	B(34, 40)
12/24/2018	B43
12/25/2018	B(34, 45)
12/26/2018	B(16, 19, 40), D28
12/27/2018	B43
12/28/2018	B(30, 34, 40, 45)
12/30/2018	B(19, 30, 34, 43, 45)
12/31/2018	B40, D26

Table 2: D.1.13, D.1.18 – Common tunnel temperature out of the 1200 to 2400 degree Fahrenheit

Incident Date / Time	Description / Asset
10/4/2018	B Battery
10/5/2018	B Battery
10/6/2018	B Battery
10/7/2018	B Battery
10/8/2018	B Battery
10/9/2018	B Battery
10/10/2018	A, B Battery
10/11/2018	A, B Battery
10/12/2018	A, B Battery
10/13/2018	A, B Battery
10/14/2018	A, B Battery
10/15/2018	A, B Battery
10/16/2018	A, B Battery
10/17/2018	A, B Battery
10/18/2018	A, B Battery
10/19/2018	A, B Battery
10/20/2018	A, B Battery
10/21/2018	A, B Battery
10/22/2018	A, B Battery
10/23/2018	A, B Battery
10/24/2018	B Battery
10/25/2018	B Battery
10/26/2018	B Battery
10/27/2018	B Battery
10/28/2018	B Battery
10/29/2018	B Battery
10/30/2018	B Battery
11/1/2018	B Battery
11/2/2018	B Battery
11/3/2018	B Battery
11/4/2018	B Battery
11/5/2018	B Battery
11/6/2018	B Battery
11/7/2018	B Battery
11/8/2018	B Battery

11/9/2018	B Battery
11/10/2018	B Battery
11/11/2018	B Battery
11/12/2018	B Battery
11/13/2018	B Battery
11/14/2018	B Battery
11/15/2018	B Battery
11/16/2018	B Battery
11/17/2018	B Battery
11/18/2018	B Battery
11/19/2018	B Battery
11/20/2018	B, C Battery
11/21/2018	B, C Battery
11/22/2018	B Battery
11/23/2018	B Battery
11/24/2018	B Battery
11/25/2018	B Battery
11/26/2018	B Battery
11/27/2018	B, C Battery
11/28/2018	B, C Battery
11/29/2018	B, C Battery
11/30/2018	B, C Battery
12/1/2018	B, C Battery
12/2/2018	B, C Battery
12/3/2018	B, C Battery
12/4/2018	B Battery
12/5/2018	B, C Battery
12/6/2018	B Battery
12/7/2018	B, C Battery
12/8/2018	B Battery
12/9/2018	B Battery
12/10/2018	B Battery
12/11/2018	B Battery
12/12/2018	B Battery
12/13/2018	B Battery
12/14/2018	B Battery
12/15/2018	B Battery
12/16/2018	B Battery
12/17/2018	B Battery
12/18/2018	B Battery
12/19/2018	B Battery
12/20/2018	B Battery
12/21/2018	B Battery
12/22/2018	B Battery
12/23/2018	B Battery
12/24/2018	B Battery
12/25/2018	B Battery
12/26/2018	B Battery
12/27/2018	B Battery

12/28/2018	B Battery
12/29/2018	B Battery
12/30/2018	B Battery
12/31/2018	B Battery

Table 3: E.2.2(c) – Door Fire (required 15 min PS / 45 min CS)

Date	Battery	Oven #	Time Observed	P/S	C/S	Duration	Cause(s)	Corrective Action(s)
10/1/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	31	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	36	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	39	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	23	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	33	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	62	7:33AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	43	7:33 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	40	7:33 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	28	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	25	7:34 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	20	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/3/2018	B	65	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	60	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	58	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	45	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes. door dampers and / or draft
10/3/2018	B	42	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	41	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	39	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	37	12:43PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	35	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	32	12:43PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	29	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	27	12:43PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	22	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	21	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	6	12:45 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	6	12:36 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	21	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	22	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	27	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	31	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	32	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	33	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	35	12:40PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	38	12:40PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	62	12:44 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	38	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	31	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	D	56	12:00 AM	X	X	4 hr 22 min	D56 was under going repairs, no sole flue damper present on C/S	adjusted door holes and uptakes
10/5/2018	B	63	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/5/2018	B	58	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	40	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	36	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	28	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	19	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	63	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door holes
10/6/2018	B	64	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	59	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	43	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	42	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	39	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	35	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	27	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	12	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	13	2:00 PM	X		8 hr	sole flues blocked	adjusted uptakes/door holes
10/6/2018	B	42	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes/door holes
10/6/2018	B	64	2:01 PM		X	8 hr	sole flues blocked	adjusted uptakes/door holes
10/7/2018	B	27	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/7/2018	B	32	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/7/2018	B	35	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/7/2018	B	65	7:40AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	38	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	33	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	6	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	6	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/9/2018	B	65	6:39AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	64	6:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	43	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	40	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	39	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	31	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	29	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	25	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	23	6:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	22	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	21	6:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	20	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	19	6:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers

10/9/2018	B	23	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	64	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	65	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/10/2018	B	60	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	42	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	37	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	32	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	12	12:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	63	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	58	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	40	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	35	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	26	1:00 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	24	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	25	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	27	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	37	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	38	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	63	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	16	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	23	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	24	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	25	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	27	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	29	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	33	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	38	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	39	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	41	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	59	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/13/2018	B	6	6:00 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	19	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	22	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	28	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	31	6:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	39	6:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	42	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	43	6:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	60	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	62	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/14/2018	B	12	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	20	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	21	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	32	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	35	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	36	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes

10/14/2018	B	40	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	44	6:02AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	64	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	22	8:30AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	21	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	27	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	37	12:18 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	41	12:22 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	59	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	63	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	25	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	33	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	35	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	36	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	37	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	39	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	59	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	63	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	65	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	43	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	42	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	35	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	32	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	29	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	28	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	27	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	24	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	23	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	19	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	7	12:28 PM	X		> 15 min	follow up repairs for sole flue	adjusted uptakes and door holes
10/17/2018	B	60	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	58	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	41	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	40	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	38	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	22	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	20	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	12	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/17/2018	B	6	2:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	64	11:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	62	11:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	39	11:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	36	11:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	31	11:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	27	11:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	21	11:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	25	2:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	6	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	19	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	21	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	35	10:01 PM	X		8 hr	sole flues blocked	adjusted draft
10/19/2018	B	47	10:01 PM	X		8 hr	sole flues blocked	adjusted draft
10/19/2018	B	59	10:01 PM	X	X	8 hr	sole flues blocked	adjusted draft
10/20/2018	B	63	7:33AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	32	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	19	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	28	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/20/2018	B	29	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/20/2018	B	40	12:35 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	33	4:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	25	5:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	39	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	38	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	37	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	35	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	27	7:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	24	7:14 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	22	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	25	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	28	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	38	8:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	63	8:19 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	31	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	22	6:58AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	21	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	6	6:58AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	65	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	64	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	60	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/23/2018	B	58	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	40	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	36	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	28	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	20	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	19	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/24/2018	B	32	2:01 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/24/2018	B	22	2:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	12	12:21 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	63	12:26 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	12	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	63	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	6	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	20	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	21	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	31	12:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	32	12:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	38	12:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/27/2018	B	6	7:00AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	19	7:00AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	21	7:00 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	25	7:00 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	31	7:01AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	33	7:01 AM	X	X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	36	7:01 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	37	7:01 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	38	7:01 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	58	7:02 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	59	7:02 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	64	7:02 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/29/2018	B	40	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/29/2018	B	27	7:05 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	28	7:05 AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	33	7:05 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	40	7:06 AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/30/2018	B	65	7:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	63	7:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	32	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	31	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	19	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	38	12:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	36	12:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	22	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	21	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/31/2018	B	16	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	12	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	6	12:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	6	12:30 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	19	12:31 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	22	12:31 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	31	12:32 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	63	12:32 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/1/2018	B	27	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	33	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	35	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	36	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	37	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	38	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	62	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	65	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	37	1:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	62	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	64	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	59	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	40	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	33	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	32	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	28	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	27	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	30	5:14 PM	X		1 hr 22 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/3/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	25	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	31	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	35	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	64	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/4/2018	B	19	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	20	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	22	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	23	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	24	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	27	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	28	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	32	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	34	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	35	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	36	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	40	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	41	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	48	6:03 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	63	6:03 AM	X		8 hr	sole flues plugged	adjusted updates
11/4/2018	B	65	6:03 AM	X		8 hr	sole flues plugged	adjusted updates
11/5/2018	B	38	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	36	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/5/2018	B	32	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	21	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	20	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	6	12:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	12	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	16	12:56 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	21	12:56 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	28	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	33	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	38	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	62	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	25	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	28	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	29	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	30	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	33	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	34	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	35	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	39	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	41	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	48	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	58	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	59	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	60	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	62	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	43	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	42	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	40	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	31	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	27	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	22	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	16	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	31	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	41	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	42	2:02 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	63	2:02 PM		X	8 hr	sole flues plugged	adjusted updates
11/8/2018	B	36	6:35AM	X		8 hr	sole flues plugged	adjusted door holes, updates
11/8/2018	B	37	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/8/2018	B	35	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/8/2018	B	32	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/8/2018	B	19	6:38AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/9/2018	B	12	12:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	19	12:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	20	12:00 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	21	12:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	23	12:01 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	24	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	25	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	28	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	33	12:02 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	39	12:02 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	65	12:03 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/10/2018	B	27	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	38	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	40	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	42	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	43	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	45	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	46	6:02AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	48	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	35	6:32AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/10/2018	B	34	6:32AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/10/2018	B	6	10:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/11/2018	B	64	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	63	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	45	7:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	39	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	64	7:00 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	32	7:01AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	31	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	22	7:01AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	20	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	32	7:01AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	31	7:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	27	7:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/12/2018	B	37	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	35	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	33	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	19	7:26AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	64	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	48	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	42	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	41	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	40	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	36	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	25	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/13/2018	B	21	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	39	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	35	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	28	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	22	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/14/2018	B	64	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/15/2018	B	6	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	20	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	31	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	32	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	33	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	38	12:43 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	58	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	63	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	6	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	20	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	31	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	32	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	38	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	58	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	59	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	60	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	62	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	65	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/16/2018	B	16	7:00AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	21	7:00AM		X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	23	7:00AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	28	7:00AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	29	7:01 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	33	7:01AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	35	7:01 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	36	7:02AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	40	7:02 AM	X	X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	45	7:02 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	59	7:03AM		X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	27	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/16/2018	B	7	7:13 AM	X		3 hrs 2 min	follow up repairs for sole flue	Increased draft and adjusted sole flue
11/17/2018	B	63	6:52AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	37	6:53AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	33	6:53AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	21	6:53AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	16	6:54 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	65	7:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/17/2018	B	62	7:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/17/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	C	36	4:00AM	X		16 min	low draft	Adjusted sole flues and crowns

11/18/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	20	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	22	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	25	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	31	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	32	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	35	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	38	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	39	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	C	35	4:48 AM	X		26 min	low draft	Adjusted sole flues and crowns
11/19/2018	B	12	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	33	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	34	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	36	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	39	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	40	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	58	6:03 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	60	6:03 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/20/2018	C	16	3:42 AM	X		19 min	low draft	Adjusted crowns and sole flues.
11/20/2018	B	65	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	62	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	39	12:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	35	12:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	29	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	28	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	6	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	28	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	32	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	33	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	41	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	44	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	59	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	32	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	21	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	19	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	6	1:16 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	C	33	11:00 PM	X		30 min	low draft	Adjusted crowns and sole flues.
11/22/2018	B	31	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	37	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	38	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	64	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	28	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	29	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	36	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	39	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	40	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	63	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	20	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	35	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	62	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	65	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	60	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	58	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/25/2018	B	40	6:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	65	6:51 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	40	6:51 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	32	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	31	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	22	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	21	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	32	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	31	6:52AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	28	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	22	6:52AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	20	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/26/2018	B	45	7:35AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	43	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	42	7:35AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	39	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	38	7:35 AM	X		> 15min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	36	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	35	7:35AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	33	7:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	48	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	37	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	28	6:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	6	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	64	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	63	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	62	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	60	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	58	1:03 PM	X		> 15min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	41	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	40	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	35	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	33	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	23	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	22	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	20	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	16	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	8	38	2:01 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	41	2:02 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	60	2:02 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes

11/28/2018	B	64	2:03 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/29/2018	B	12	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	16	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	25	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	27	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	31	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	32	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	42	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	44	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	21	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	25	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	27	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	31	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	32	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	39	1:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/30/2018	B	16	6:00 AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	19	6:00 AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	21	6:00 AM		X	8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	35	6:01 AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	38	6:01AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	63	6:02 AM		X	8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	16	8:02 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/30/2018	D	3	8:22 AM	X		1 hr 53 min	low draft	adjusted sole flue and increased draft
12/2/2018	B	65	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	58	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	40	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	37	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	32	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	31	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	20	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low/ loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	6	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	6	7:53 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	31	7:54 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	32	7:54 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	58	7:57 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	64	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	63	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	62	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	35	12:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	25	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/3/2018	B	23	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	22	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	21	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	20	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	21	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	22	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	27	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	38	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	41	12:44 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	59	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	63	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	64	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	59	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	48	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	40	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	38	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	30	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	28	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	20	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	19	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	23	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/5/2018	B	58	12:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/5/2018	B	33	12:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	27	8:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	25	8:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	58	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes and door
12/7/2018	B	6	2:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	32	2:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	40	2:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	64	2:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	64	7:03AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	63	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	60	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	59	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	39	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	38	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	36	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	34	7:05AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	31	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/8/2018	B	31	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	38	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	59	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	64	2:03 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/9/2018	C	53	4:27 AM		X	50 min	low draft	adjusted sole flues and dampers
12/9/2018	B	65	6:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	58	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	35	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	23	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	22	6:56 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	21	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	20	6:56 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	19	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	12	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	28	7:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	30	7:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	34	7:02 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	35	7:02 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	12	7:25AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	20	7:26 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	22	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	23	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	32	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/10/2018	B	40	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/10/2018	B	27	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	27	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	32	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	36	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	62	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	36	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	35	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	33	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	32	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	25	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	44	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	41	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	39	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	38	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	31	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	28	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	24	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/13/2018	B	37	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	60	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	64	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	6	7:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	40	12:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	29	12:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	22	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	21	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	16	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/14/2018	B	31	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/14/2018	B	60	2:02 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/15/2018	B	63	7:18 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	62	7:18 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	25	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	24	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	D	41	7:27 AM	X		3 hr 33 min	door not properly sealed due to lintel damage	adjusted sole flues and dampers
12/15/2018	D	3	7:27 AM	X		3 hr 33 min	low draft	adjusted sole flues and dampers
12/16/2018	B	43	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	38	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	64	7:28 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/16/2018	B	32	7:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	31	7:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	31	7:29 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/16/2018	B	22	7:29 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/16/2018	B	28	7:56 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	41	7:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	44	7:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	60	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	59	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	47	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	45	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	40	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	35	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draf	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draf
12/17/2018	B	33	7:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	12	7:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	39	7:14 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	24	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	22	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	21	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	20	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/18/2018	B	19	7:15AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	6	12:26 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	22	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	27	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	32	12:29 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	41	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	62	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	64	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	65	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	64	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	62	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	36	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	32	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	25	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	6	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	40	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	38	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	37	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	35	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	33	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	28	1:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	63	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	58	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	39	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	34	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	31	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	59	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	42	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	41	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	40	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	36	8:28AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	35	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	34	8:28AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	32	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	27	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	25	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/23/2018	B	24	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	23	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	22	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	21	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	19	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	16	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	27	8:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	31	8:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	32	8:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	33	8:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	36	8:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	40	8:46AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	63	8:47 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/24/2018	B	21	6:00 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	23	6:00AM		X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	28	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	29	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	39	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	65	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	43	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	62	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	64	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/25/2018	B	28	6:00 AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/25/2018	B	38	6:00AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/25/2018	B	59	6:00AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/26/2018	B	6	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	20	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	22	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	26	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	31	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	32	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	33	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	34	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	35	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	37	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	40	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	44	12:53 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	63	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	58	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	40	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	37	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	32	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/26/2018	B	31	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	20	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	19	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	6	1:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	63	1:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	60	1:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	43	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	39	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	36	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	35	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	28	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	21	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	27	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	25	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	23	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	22	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	42	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	38	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	35	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	34	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	27	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	21	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/28/2018	B	43	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/29/2018	B	62	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	58	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	33	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	32	7:24 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/30/2018	B	16	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	19	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	20	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	22	6:00AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	23	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	28	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	29	6:01AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	31	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	33	6:02 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	36	6:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	40	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	64	6:02AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	31	8:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/30/2018	B	32	8:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/31/2018	B	6	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/31/2018	B	29	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/31/2018	B	65	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes

SunCoke Energy

SunCoke Energy, Inc.
3210 Watling St
MC 2-990
East Chicago, IN 46312
219-378-3900 Phone
219-378-4590 Fax

April 29, 2019

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204 – 2251

RE: Operating Permit Certification – Permit No. T089-30034-00382

Attached you will find Indiana Harbor Coke Company's (IHCC's) Part 70 Operating Permit Certification, Quarterly report for coal charged, and Quarterly Deviation and Compliance Monitoring Report for the 1st Quarter of 2019.

Sincerely,

Justin L. Kirby
Environmental Manager

cc:

Clifford Yukawa w/attachments
IDEM/Northwest Regional Office
330 W US Highway 30, Suite F
Valparaiso, IN 46385

Attachments:
Part 70 Operating Permit Certification
Quarterly Report for Coal Charged
Quarterly Deviation & Compliance Monitoring Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☒ Quarterly Report for 1st Quarter 2019

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature: Patrick A Nigl
Printed Name: Patrick Nigl
Title/Position: General Manager
Phone: (219) 378-3902
Date: April 29, 2019

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT SECTION

Part 70 Quarterly Report

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382
Source/Facility:	IHCC
Limit:	2,040,000 tons of dry coal charged per twelve (12) consecutive month period with compliance determined at the end of each month

Quarter: 1st **Year:** 2019

Month	12 Month Rolling Sum Tons of Coal Charged	1st Quarter Tons	2nd Quarter Tons	3rd Quarter Tons	4th Quarter Tons
January	1,330,357	121,424			
February	1,341,953	109,227			
March	1,351,139	120,331			
April					
May					
June					
July					
August					
September					
October					
November					
December					

☒ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: Patrick Nigl
Title / Position: General Manager
Signature:
Date: April 29, 2019
Phone: (219)-378-3902
Attached a signed certification to complete this report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE and ENFORCEMENT BRANCH

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name:	Indiana Harbor Coke Company L.P., a contractor of ArcelorMittal
Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Part 70 Permit Renewal No.:	T089-30043-00382

Reporting Period: January 1, 2019 – March 31, 2019

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☒ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #): C.5(k)	
Date of Deviation: 01/07, 01/13, 01/21, 01/27, 02/11, 02/17	**Duration of Deviation:** 6 3-minute averages
Number of Deviations: 6	
Probable Cause of Deviation: IHCC's certified Method 9 observer recorded fugitive visible emissions from charging operations exceeding the twenty percent (20%) opacity standard as a three (3) minute average.	
Response Steps Taken: In addition to rebuilding coke ovens, IHCC is continuing to implement an on-going oven maintenance and repair program.	

Permit Requirement (specify permit condition #): D.1.12(b)	
Dates of Deviation: 01/04, 01/06, 01/07, 01/10, 01/17, 01/20, 01/23 – 01/28, 01/30, 02/01, 02/02, 02/04, 02/06, 02/08 – 02/10, 02/13, 02/14, 02/16, 02/18, 02/20 – 02/22, 02/24 – 03/02, 03/04, 03/05, 03/07, 03/09, 03/12, 03/16 – 03/17, 03/19, 03/21, 03/24	**Duration of Deviation:** Please see Table 1 (attached)
Number of Deviations: 68	
Probable Cause of Deviation: IHCC personnel recorded that certain oven dampers did not properly function to open when the charging process was initiated. Thus, they were not positioned to maximize draft (i.e. at the minimum position) during charging activities on 68 occasions during the reporting period. The uptake dampers are programmed to open fully once the charging sequence on an oven is initiated; however, in these instances, the dampers malfunctioned and were not able to fully open. For specific dates and oven numbers, please see the oven uptake information in Table 1 attached to this quarterly report. 62 of these deviations occurred on non-rebuilt coke ovens.	
Response Steps Taken: Personnel inspect all uptakes prior to pushing ovens to maximize proper operation. IHCC maintenance personnel execute a daily oven damper maintenance and repair program to ensure dampers are functional. Additionally, IHCC is installing a new damper positioning system as ovens are rebuilt to ensure dampers are able to function and be positioned to maximize draft during charging.	

Permit Requirement (specify permit condition #): D.1.13, D.1.18	
Dates of Deviation: 01/01 – 01/14, 01/16 – 03/31	**Duration of Deviation:** Please see Table 2 (attached)
Number of Deviations: 89 days	
Probable Cause of Deviation: For a total of 89 days, IHCC was unable to maintain 1200 to 2400 degree Fahrenheit temperature in the common tunnels on A, B, C, and D Batteries. For A Battery, the two (2) low common tunnel temperature readings are a result of abnormally cold temperatures during the winter. For B Battery, the 89 low common tunnel temperature readings are a result of multiple ovens out of service as part of the rebuild process and, therefore, the overall heat load to the common tunnel is reduced. For C and D Batteries, the twenty-one (21) low common tunnel temperature readings are a result of fouling within Cokenergy's HRSGs leading to low draft, which is expected to be remedied as HRSGs are cleaned this spring.	
Response Steps Taken: IHCC has taken several response measures to increase the common tunnel temperatures including installing gas lances in the ovens. IHCC is continuing to implement its on-going oven maintenance and repair program which will increase the common tunnel temperatures.	

Permit Requirement (specify permit condition #) E.2.2 (c)	
Dates of Deviation: 01/01, 01/02, 01/05 – 01/08, 01/10 – 01/12, 01/14 – 01/17, 01/21, 01/22, 01/24 – 01/31, 02/02 – 02/26, 02/28 – 03/11, 03/13, 03/15 – 03/21, 03/23 – 03/27, 03/31	**Duration of Deviation:** Varies
Number of Deviations: 95	
Probable Cause of Deviation: On 95 occasions, IHCC personnel observed positive pressure on B, C and/or D Battery common tunnel attributable to weather and fouling in Cokenergy's heat recovery steam generators (HRSGs) which leads to low draft.	
Response Steps Taken: IHCC operations personnel monitor oven conditions to maintain negative draft within the common tunnel. An on-going program of inspecting, cleaning, and repairing the common tunnel is expected to improve negative draft as measured.	

Permit Requirement (specify permit condition #) E.2.2 (c)	
Dates of Deviation: 01/01 – 01/18, 01/20 – 01/30, 02/01 – 02/19, 02/21, 02/22, 02/24 – 03/03, 03/05 – 03/31	**Duration of Deviation:** Please see Table 3 (attached)
Number of Deviations: 510	
Probable Cause of Deviation: Door fires that occurred during the reporting period and lasted longer than 15 minutes on the push side or 45 minutes on coke side are the result of aging non-rebuilt coke ovens. Corrective actions were taken, but operators were unable to stop the leaks within the allowed 15 minutes or 45 minutes on certain ovens for the dates mentioned above. 503 of the 510 deviations occurred on aging non-rebuilt coke ovens. 7 deviations occurred on rebuilt ovens, all of which are related to insufficient/low draft due to HRSG fouling.	
Response Steps Taken: IHCC personnel monitor and perform all necessary mitigation steps to reduce the door leaks as much as practicable. In addition to rebuilding coke ovens, IHCC is in the process of completing an on-going oven maintenance and repair program, which includes inspecting and cleaning the common tunnel to maintain sufficient draft.	

Signature:

Form Completed By: **Justin L. Kirby**
Title/Position: **Environmental Manager**
Phone: **(219)-378-3968**
Date: **April 29, 2019**

Attachments:

Table 1: D.1.12(b) - Uptake damper position indicated closed following the charge of the oven:

Incident Date / Time	Description / Asset
1/4/2019	B45
1/6/2019	B19
1/7/2019	B43
1/10/2019	B(19, 45)
1/17/2019	B(34, 40)
1/20/2019	B(43, 45)
1/23/2019	B19
1/24/2019	B40
1/25/2019	B(43, 45)
1/26/2019	B45, C50
1/27/2019	D51
1/28/2019	B40
1/30/2019	B(19, 43, 45)
2/1/2019	B28
2/2/2019	B(3, 45)
2/4/2019	D34
2/6/2019	B43
2/8/2019	B(19, 45)
2/9/2019	B(34, 45), D11
2/10/2019	B(34, 40)
2/13/2019	B(34, 43)
2/14/2019	B45
2/16/2019	B(19, 34)
2/18/2019	B(34, 40)
2/20/2019	B(28, 31)
2/21/2019	B45
2/22/2019	B(27, 40, 43)
2/24/2019	B28
2/25/2019	B34
2/26/2019	B(19, 40)
2/27/2019	B34
2/28/2019	B(28, 40, 45)
3/1/2019	B(19, 34)
3/2/2019	B34
3/4/2019	B34
3/5/2019	B19
3/7/2019	C26
3/9/2019	B41
3/12/2019	B19
3/16/2019	B19
3/17/2019	B45
3/19/2019	B19
3/21/2019	B43
3/24/2019	B(19, 45)

Table 2: D.1.13, D.1.18 – Common tunnel temperature out of the 1200 to 2400 degree Fahrenheit

Incident Date / Time	Description / Asset
1/1/2019	B Battery
1/2/2019	B Battery
1/3/2019	B, D Battery
1/4/2019	B Battery
1/5/2019	B Battery
1/6/2019	B Battery
1/7/2019	B Battery
1/8/2019	B Battery
1/9/2019	B Battery
1/10/2019	B Battery
1/11/2019	B Battery
1/12/2019	B Battery
1/13/2019	B Battery
1/14/2019	B Battery
1/16/2019	B Battery
1/17/2019	B Battery
1/18/2019	B Battery
1/19/2019	B Battery
1/20/2019	B Battery
1/21/2019	B Battery
1/22/2019	B Battery
1/23/2019	B Battery
1/24/2019	B Battery
1/25/2019	B, C Battery
1/26/2019	B Battery
1/27/2019	B Battery
1/28/2019	B Battery
1/29/2019	B Battery
1/30/2019	B, C Battery
1/31/2019	A, B, C, D Battery
2/1/2019	A, B, C, D Battery
2/2/2019	B, C, D Battery
2/3/2019	B, D Battery
2/4/2019	B Battery
2/5/2019	B Battery
2/6/2019	B Battery
2/7/2019	B Battery
2/8/2019	B Battery
2/9/2019	B, C Battery
2/10/2019	B Battery
2/11/2019	B, C Battery
2/12/2019	B Battery
2/13/2019	B Battery
2/14/2019	B Battery
2/15/2019	B Battery
2/16/2019	B Battery
2/17/2019	B Battery

2/18/2019	B Battery
2/19/2019	B Battery
2/20/2019	B Battery
2/21/2019	B Battery
2/22/2019	B Battery
2/23/2019	B Battery
2/24/2019	B Battery
2/25/2019	B, D Battery
2/26/2019	B, D Battery
2/27/2019	B, C Battery
2/28/2019	B Battery
3/1/2019	B Battery
3/2/2019	B Battery
3/3/2019	B Battery
3/4/2019	B Battery
3/5/2019	B Battery
3/6/2019	B Battery
3/7/2019	B, C Battery
3/8/2019	B Battery
3/9/2019	B Battery
3/10/2019	B Battery
3/11/2019	B Battery
3/12/2019	B Battery
3/13/2019	B Battery
3/14/2019	B Battery
3/15/2019	B Battery
3/16/2019	B Battery
3/17/2019	B Battery
3/18/2019	B Battery
3/19/2019	B Battery
3/20/2019	B, C Battery
3/21/2019	B Battery
3/22/2019	B, C Battery
3/23/2019	B Battery
3/24/2019	B, C Battery
3/25/2019	B, D Battery
3/26/2019	B Battery
3/27/2019	B, D Battery
3/28/2019	B Battery
3/29/2019	B Battery
3/30/2019	B Battery
3/31/2019	B Battery

Table 3: E.2.2(c) – Door Fire (required 15 min PS / 45 min CS)

Date	Battery	Oven #	Time Observed	P/S	C/S	Duration	Cause(s)	Corrective Action(s)
1/1/2019	B	21	6:00 AM	X	X	8 hr	sole flue plugged	adjusted uptakes
1/1/2019	B	27	6:00 AM	X		8 hr	sole flue plugged	adjusted uptakes
1/1/2019	B	30	6:00 AM	X		8 hr	sole flue plugged	adjusted uptakes
1/1/2019	B	38	6:01 AM	X		8 hr	sole flue plugged	adjusted uptakes
1/1/2019	B	40	6:01AM	X		8 hr	sole flue plugged	adjusted uptakes
1/1/2019	B	60	6:01 AM	X		8 hr	sole flue plugged	adjusted uptakes
1/2/2019	B	63	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/2/2019	B	39	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/2/2019	B	32	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/2/2019	B	31	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/2/2019	B	16	1:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	12	12:20 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	22	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	28	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	31	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	36	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	63	12:25 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	62	12:57 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	28	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	25	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	23	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/3/2019	B	22	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	40	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	38	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	36	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	35	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	19	1:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/4/2019	B	38	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/5/2019	B	60	6:57AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/5/2019	B	44	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/5/2019	B	32	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/5/2019	B	6	6:59 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	64	7:18 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	22	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	21	7:19AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes. door dampers and / or draft
1/6/2019	B	21	7:19 AM		X	8 hr	sole flues blocked	adjust uptakes and door holes
1/6/2019	B	6	7:20 AM		X	8 hr	sole flues blocked	adjust uptakes and door holes
1/6/2019	D	3	7:35 AM	X		30 min	low draft from D1 boiler	burner made sole flue adjustments and draft increased
1/6/2019	B	13	8:30 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	12	8:30 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

1/6/2019	B	29	8:30AM		X	8 hr	sole flues blocked	adjust uptakes and door holes
1/6/2019	B	32	8:30AM		X	8 hr	sole flues blocked	adjust uptakes and door holes
1/6/2019	B	22	8:31 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	39	8:33 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	41	8:33AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/6/2019	B	59	8:35AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	63	7:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	59	7:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	58	7:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	40	7:08 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	28	7:08AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/7/2019	B	20	7:08AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	19	7:02AM	X		8 hr	sole flues plugged	adjusted uptakes
1/8/2019	B	12	7:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
1/8/2019	B	65	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	62	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	62	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes
1/8/2019	B	43	7:06AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	42	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	38	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	32	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	31	7:06AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	29	7:06AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/8/2019	B	38	7:06 AM		X	8 hr	sole flues plugged	adjusted uptakes
1/8/2019	B	28	7:06AM		X	8 hr	sole flues plugged	adjusted uptakes
1/8/2019	B	31	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/9/2019	B	44	7:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/9/2019	B	34	7:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/9/2019	B	25	7:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/9/2019	B	24	7:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/9/2019	B	19	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/9/2019	B	64	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/10/2019	B	59	7:15AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	58	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	43	7:15AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	42	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	40	7:15AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	33	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	28	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	27	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	22	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

1/10/2019	B	21	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/10/2019	B	7	7:17 AM	X		> 15 min	structural issues with B6	adjusted draft and sole flues
1/10/2019	B	6	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/11/2019	B	65	7:14 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
1/11/2019	B	32	7:14 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
1/11/2019	B	31	7:14AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
1/12/2019	B	63	7:14AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
1/12/2019	B	20	7:15 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
1/13/2019	B	64	11:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	6	12:00 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/13/2019	B	65	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	64	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	63	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	62	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	58	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	44	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	43	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	34	12:34 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	33	12:34 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	31	12:34 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	28	12:35 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	27	12:35 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	24	12:35 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/13/2019	B	12	12:36 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	21	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	22	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	28	6:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	35	6:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	39	6:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	40	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	42	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	43	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	44	6:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	58	6:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	59	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/14/2019	B	62	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/15/2019	B	21	6:00 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/15/2019	B	22	6:00AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/15/2019	B	23	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
1/15/2019	B	27	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
1/15/2019	B	31	6:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/15/2019	B	4	6:24AM	X		21 min	Insufficient burner response in time, B1 draft issues	Adjusted sole flues

1/16/2019	B	41	12:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	40	12:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	38	12:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	33	12:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	32	12:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	25	12:57 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	20	12:57 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	19	12:57 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/16/2019	B	38	2:01 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/16/2019	B	41	2:01 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
1/17/2019	B	65	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/17/2019	B	58	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/17/2019	B	6	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/17/2019	B	6	2:00 PM		X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/17/2019	B	65	2:01 PM		X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/18/2019	B	12	12:30 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	22	12:33 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	28	12:33 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	33	12:33 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	36	12:36 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	44	12:36 PM		X	8 hr	sole flues plugged	adjusted uptakes
1/18/2019	B	16	1:15 PM	X		8 hr	sole flues plugged	adjusted uptakes
1/20/2019	B	21	6:00AM	X		8 hr	sole flue pugged	adjusted uptakes
1/20/2019	B	28	6:00AM	X		8 hr	sole flue pugged	adjusted uptakes
1/20/2019	B	31	6:00AM	X	X	8 hr	sole flue pugged	adjusted uptakes
1/20/2019	B	40	6:01 AM	X		8 hr	sole flue pugged	adjusted uptakes
1/20/2019	B	59	6:01 AM	X		8 hr	sole flue pugged	adjusted uptakes
1/20/2019	B	60	6:01AM	X		8 hr	sole flue pugged	adjusted uptakes
1/21/2019	B	12	10:20 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	21	10:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	24	10:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	28	10:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	32	10:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	33	10:21AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/21/2019	B	34	10:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/22/2019	B	40	8:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	6	12:29 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	36	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	44	12:34 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	42	1:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	39	1:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	38	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	36	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	35	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

1/23/2019	B	21	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/23/2019	B	6	2:00 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	43	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	33	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	32	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	31	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low/ loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	29	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	28	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	20	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/24/2019	B	19	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/25/2019	B	40	7:44 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/26/2019	B	39	7:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/26/2019	B	35	7:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/26/2019	B	16	7:56 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	44	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	38	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	31	7:00 AM		X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	25	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	22	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	21	7:01AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	27	7:25 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/27/2019	B	33	7:25 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/28/2019	B	28	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/28/2019	B	20	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/28/2019	B	19	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/29/2019	B	40	7:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/29/2019	B	39	7:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/29/2019	B	31	7:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/29/2019	B	16	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/29/2019	B	6	7:13 AM	X		8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/30/2019	B	25	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
1/30/2019	B	22	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	32	12:37 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	31	12:37 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	27	12:37 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	21	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

2/1/2019	B	20	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	38	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	32	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	21	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/1/2019	B	38	1:20 PM		X	8 hr	sole flue plugged	adjusted uptakes
2/2/2019	B	44	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	41	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	40	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	39	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	36	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	25	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	23	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	22	7:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	20	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/2/2019	B	19	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/3/2019	B	43	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/3/2019	B	42	7:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/3/2019	B	35	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/3/2019	B	41	7:00AM		X	8 hr	sole flue plugged	adjusted uptakes
2/3/2019	B	36	7:00AM		X	8 hr	sole flue plugged	adjusted uptakes
2/3/2019	B	31	7:01AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/3/2019	B	31	7:01 AM		X	8 hr	sole flue plugged	adjusted uptakes
2/3/2019	B	28	8:04 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/4/2019	B	45	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/4/2019	B	21	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/4/2019	B	12	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/4/2019	B	6	6:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/5/2019	B	28	6:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/5/2019	B	22	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/6/2019	B	6	12:34 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/7/2019	B	38	12:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/7/2019	B	19	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	21	7:42AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	28	7:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	29	7:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	34	7:43 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	35	7:43 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/8/2019	B	36	7:43 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

2/8/2019	B	40	7:43 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/9/2019	B	31	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	6	8:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	6	8:07 AM		X	8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	12	9:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	19	9:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	24	9:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	25	9:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	12	9:03 AM	X		8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	24	9:03 AM	X		8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	25	9:03 AM	X		8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	31	9:04 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	34	9:04 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/10/2019	B	34	9:04 AM	X		8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	48	9:04 AM	X		8 hr	sole flue plugged	adjusted uptakes
2/10/2019	B	48	9:07 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/11/2019	D	3	6:35 AM	X		17 min	low draft from D1 boiler	burner made sole flue adjustments and draft increased
2/12/2019	B	40	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/12/2019	B	28	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/13/2019	B	39	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/14/2019	B	31	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/14/2019	B	35	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/14/2019	B	36	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/14/2019	B	31	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/14/2019	B	36	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	19	1:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	22	1:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	23	1:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	24	1:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	28	1:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/15/2019	B	40	1:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/16/2019	B	38	6:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/16/2019	B	21	6:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/16/2019	B	6	6:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	6	6:55 AM		X	8 hr	sole flue plugged	adjusted uptakes
2/17/2019	D	3	8:15 AM	X		20 min	low draft from D1 boiler	burner made sole flue adjustments and draft increased
2/17/2019	B	12	8:57 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	19	8:58AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	20	8:58AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	28	8:58AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

2/17/2019	B	33	8:58 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	34	8:58 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	41	9:01 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	42	9:01 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	43	9:01 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	44	9:01AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/17/2019	B	45	9:01 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/18/2019	B	31	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/18/2019	B	22	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/18/2019	B	20	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/18/2019	B	4	6:57 AM	X		6 hrs 4 min	low draft from B1 boiler	burner made sole flue adjustments and draft increased
2/19/2019	B	40	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/19/2019	B	28	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/19/2019	B	19	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	36	12:18 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	12	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	20	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	22	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	24	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	27	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	29	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	33	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	34	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	35	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	36	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	43	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/21/2019	B	44	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/22/2019	B	48	1:21 PM	X		8 hr	sole flue plugged	adjusted uptakes
2/22/2019	B	40	1:21 PM	X		8 hr	sole flue plugged	adjusted uptakes
2/22/2019	B	31	1:21 PM	X		8 hr	sole flue plugged	adjusted uptakes
2/22/2019	B	6	1:21 PM	X		8 hr	sole flue plugged	adjusted uptakes
2/24/2019	B	35	8:02 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/24/2019	B	32	8:02 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/24/2019	B	24	8:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/24/2019	B	22	8:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/24/2019	B	19	8:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/25/2019	B	40	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/25/2019	B	34	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

2/25/2019	B	29	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/25/2019	B	28	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	6	6:27 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	20	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	27	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	28	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	31	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	32	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	33	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	34	6:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	36	6:29 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	38	6:29 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	40	6:29 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	45	6:29 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	31	7:08 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/26/2019	B	20	7:08 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/27/2019	B	35	1:12 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/27/2019	B	25	1:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/27/2019	B	34	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/27/2019	B	35	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/27/2019	B	44	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	43	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	40	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	32	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	20	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	25	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	23	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	21	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
2/28/2019	B	6	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/1/2019	B	22	1:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/1/2019	B	36	1:34 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/2/2019	B	34	6:38 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/2/2019	B	31	6:38 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	48	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	45	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	43	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

3/3/2019	B	40	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	35	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	35	6:48 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/3/2019	B	25	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	24	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	19	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/3/2019	B	31	6:49AM		X	8 hr	sole flues plugged	adjusted uptakes
3/3/2019	B	25	6:49 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/3/2019	B	24	6:49 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/3/2019	B	19	6:49 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/3/2019	B	40	7:13 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/5/2019	B	35	6:24AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/5/2019	B	34	6:24AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/5/2019	B	32	6:24 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/5/2019	B	27	6:24AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/5/2019	B	16	6:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	48	2:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	40	2:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	36	2:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	31	2:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	28	2:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	20	2:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/6/2019	B	6	2:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	6	12:15 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	20	12:15 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	31	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	33	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	34	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	45	12:20 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	39	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/7/2019	B	34	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/8/2019	B	32	8:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/9/2019	B	40	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/9/2019	B	39	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	48	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	42	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	41	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	34	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	29	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

3/10/2019	B	28	7:16AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	21	7:16AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	20	7:16AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	19	7:16AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/10/2019	B	16	7:16AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/11/2019	B	27	6:34AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/11/2019	B	28	6:34 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/11/2019	B	31	6:34AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/11/2019	B	31	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/11/2019	B	27	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/12/2019	B	40	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/12/2019	B	33	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/12/2019	B	6	7:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/13/2019	B	36	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/13/2019	B	32	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/13/2019	B	21	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/13/2019	B	20	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/13/2019	B	19	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/14/2019	B	6	12:20 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	20	12:23 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	21	12:23 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	28	12:23 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	29	12:23 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	32	12:24 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	35	12:24 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/14/2019	B	39	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/15/2019	B	40	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/15/2019	B	35	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/15/2019	B	34	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/15/2019	B	27	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/15/2019	B	23	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/16/2019	B	41	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/16/2019	B	32	7:28AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/16/2019	B	31	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	43	7:22AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	42	7:22 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	36	7:22AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	35	7:22AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	34	7:22AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	31	7:22 AM		X	8 hr	sole flues plugged	adjusted uptakes

3/17/2019	B	21	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	20	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/17/2019	B	19	7:23AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/18/2019	B	28	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/18/2019	B	24	6:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/18/2019	B	16	6:42AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/18/2019	B	6	6:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/19/2019	B	27	6:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	47	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	42	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	41	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	40	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	39	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	34	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/20/2019	B	32	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	35	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	31	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	25	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	24	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	35	1:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/21/2019	B	31	1:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/21/2019	B	21	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	20	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	19	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/21/2019	B	6	1:04 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/21/2019	B	32	1:17 PM		X	8 hr	sole flues plugged	adjusted uptakes
3/22/2019	B	48	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/22/2019	B	40	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/22/2019	B	34	12:41PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/23/2019	B	45	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	47	8:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	42	8:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	36	8:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	35	8:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	34	8:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	32	8:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	25	8:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	24	8:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

3/24/2019	B	20	8:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	16	8:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/24/2019	B	32	8:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/24/2019	B	24	8:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
3/25/2019	B	31	6:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/25/2019	B	19	6:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/26/2019	B	41	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/26/2019	B	40	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/26/2019	B	6	6:38 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/26/2019	D	3	6:40 AM	X		55 min	low draft due to HRSG cleaning	closed sole flues
3/27/2019	B	35	8:00AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
3/27/2019	B	33	8:00 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
3/27/2019	B	31	8:00 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
3/27/2019	B	24	8:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
3/27/2019	B	6	8:00AM		X	8 hr	soleflues blocked	adjusted uptakes and door holes
3/28/2019	B	34	1:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/28/2019	B	32	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/28/2019	B	25	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/28/2019	B	20	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/29/2019	B	40	6:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/29/2019	B	39	6:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/29/2019	B	31	6:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/29/2019	B	19	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/30/2019	B	36	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/30/2019	B	34	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/30/2019	B	28	7:06 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/31/2019	B	40	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/31/2019	B	39	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/31/2019	B	35	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
3/31/2019	B	40	7:04 AM		X	8 hr	sole flues blocked	adjusted uptakes
3/31/2019	B	35	7:04 AM		X	8 hr	sole flues blocked	adjusted uptakes
3/31/2019	B	31	7:04 AM		X	8 hr	sole flues blocked	adjusted uptakes
3/31/2019	B	24	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

SunCoke Energy™

Indiana Harbor Coke Company, L.P.
3210 Watling Street, MC 2-990
East Chicago, IN 46312
(219) 378-3949 FAX (219) 397-4590

January 24, 2019

Mr. David Cline
Compliance Data Section
Indiana Department of Environmental Management
100 North Senate Avenue, Mail Code 61 – 53 IGCN – 1003
Indianapolis, IN 46204 – 2551

40 CFR 63, Subparts L and CCCCC
2018 Second Semi-Annual Compliance Certification

Dear Mr. Cline:

Indiana Harbor Coke Company, L.P. (IHCC) operates a coke production facility located in East Chicago, Indiana. The facility is subject to the National Emissions Standards for Coke Oven Batteries (MACT L) and the National Emissions Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks (MACT CCCCC).

Per applicable reporting and recordkeeping provisions of 40 CFR 63.311 and 40 CFR 63.7341, IHCC is providing the following information for the semiannual compliance period of July 1, 2018 through December 31, 2018.

- IHCC did not experience any malfunction events with respect to the standards of MACT L during the current reporting period.
- IHCC experienced deviations from the work practice standards listed in MACT L and incorporated in the facility's Work Practice Plan pursuant to 40 CFR 63.303(b)(3). IHCC is reporting these deviations in Table 1 below.

TABLE 1. DEVIATIONS FROM MACT L WORK PRACTICE STANDARDS

Dates	Event Description	Corrective Action
07/01 – 07/03, 07/05 – 07/12, 07/15 – 07/19, 07/21 – 07/22, 07/24, 07/27 – 07/28, 07/30, 08/02, 08/04 – 08/05, 08/07, 08/10 – 08/11, 08/13 – 08/14, 08/19 – 08/20, 08/22, 08/24 – 08/26, 08/31, 09/03, 09/06, 09/08 – 09/09, 09/11, 09/14, 09/20 – 09/21, 09/23, 09/25, 09/28 – 09/30, 10/02, 10/08, 10/11, 10/13, 10/14, 10/16, 10/19 - 10/23, 10/26, 10/28, 10/29, 11/03, 11/05, 11/06, 11/08, 11/09, 11/11 - 11/14, 11/16, 11/18, 11/20 - 11/22, 11/24, 11/26 - 12/01, 12/03, 12/07, 12/09, 12/10, 12/12, 12/13, 12/15, 12/16, 12/17, 12/19, 12/20, 12/22 – 12/28, 12/30, 12/31	IHCC personnel recorded that the oven damper was not positioned to maximize draft during charging activities on the listed dates.	IHCC is installing a new damper positioning system to ensure dampers are positioned to maximize draft during charging. Additionally, IHCC performs maintenance and repairs on the existing uptake damper assemblies daily. Please see Attachment A for more details.
11/04, 11/06, 11/08, 11/19, 11/22, 11/23, 11/26, 11/28, 11/30, 12/03, 12/05, 12/08 – 12/10, 12/12 – 12/18, 12/22, 12/23 – 12/25, 12/27, 12/28, 12/30, 12/31	IHCC personnel observed positive pressure on B, C and/or D Battery common tunnel attributable to inadequate condensation drainage in the differential pressure cell line, weather, fluctuating process conditions involving the ovens, and the heat recovery steam generators (HRSGs).	IHCC operations personnel monitor oven conditions to maintain negative draft within the common tunnel. Cleaning and maintenance has been performed on the common tunnel that is expected to improve the performance of the pressure gauges measuring tunnel draft as well as make adjustments for improved condensation drainage.

- IHCC experienced deviations from the work practice standards established for the observation of coke oven doors for leaks as required by 40 CFR 63.303(c)(2). Please see Attachment B for more details.

- IHCC did not experience any malfunction events with respect to the standards of MACT CCCCC during the current reporting period.

- During the current reporting period, IHCC did not experience any deviations from the emission limitations, work practice standards, or operation and maintenance requirements listed in MACT CCCCC. The coke oven batteries operated for 4,416 hours during this semi-annual compliance period.

As the responsible official, I certify that based on information and belief formed after reasonable inquiry, the statements and information in the above are true, accurate, and complete.

Sincerely,

Patrick Nigl
General Manager

cc:

Clifford Yukawa
IDEM/Northwest Regional Office
330 W US Highway 30, Suite F
Valparaiso, IN 46385

Edward Nam
Air and Radiation Division US EPA Region 5
77 West Jackson Boulevard (A-18J)
Chicago, IL 60604

ATTACHMENT A:

UPTAKE DAMPER POSITION DEVIATIONS

Uptake damper position indicated closed following the charge of the oven

Incident Date/Time	Description/Asset
7/1/2018	A63
7/2/2018	B26
7/3/2018	A66
7/5/2018	B(22, 26)
7/6/2018	A66
7/7/2018	B22
7/8/2018	A(43, 46), B26
7/9/2018	B34
7/10/2018	A66
7/11/2018	B26
7/12/2018	A66
7/15/2018	A66
7/16/2018	B22
7/17/2018	B44
7/18/2018	C34
7/19/2018	B22
7/21/2018	A66
7/22/2018	B22
7/24/2018	A66
7/27/2018	D33
7/28/2018	A66, B35
7/30/2018	B(24, 35)
8/2/2018	A62, B35
8/4/2018	B22
8/5/2018	B31
8/7/2018	B22
8/10/2018	B22
8/11/2018	B46
8/13/2018	B(22, 46)
8/14/2018	B22
8/19/2018	D10
8/20/2018	B24
8/22/2018	B22

8/24/2018	B46
8/25/2018	B22
8/26/2018	B(40, 46)
8/31/2018	A28, B22
9/3/2018	A6, B22
9/6/2018	B22
9/8/2018	A29
9/9/2018	B22
9/11/2018	B(39, 41)
9/14/2018	B22
9/20/2018	D59
9/21/2018	B(26, 29)
9/23/2018	A37, B39
9/25/2018	D57
9/28/2018	B(23, 60), D59
9/29/2018	B(41, 42, 45)
9/30/2018	D10
10/2/2018	B39
10/8/2018	B(23, 26, 29, 41)
10/11/2018	A42
10/13/2018	B(20, 21)
10/14/2018	B39
10/16/2018	B26
10/19/2018	B46
10/20/2018	B(40, 63)
10/21/2018	B60
10/22/2018	B(19, 21, 24, 46)
10/23/2018	B23
10/26/2018	B46
10/28/2018	B46
10/29/2018	A50
11/3/2018	B(19, 46)
11/5/2018	B46
11/6/2018	B60
11/8/2018	B46
11/9/2018	B35
11/11/2018	A9, B45
11/12/2018	B35
11/13/2018	B45
11/14/2018	B35

11/16/2018	B(35, 41, 45)
11/18/2018	B35
11/20/2018	D57
11/21/2018	B45
11/22/2018	B27
11/24/2018	B(35, 45)
11/26/2018	B(34, 35)
11/27/2018	B40
11/28/2018	B45
11/29/2018	B(34,43)
11/30/2018	B40
12/1/2018	B45
12/3/2018	B40
12/7/2018	B(31,34), C9
12/9/2018	B43
12/10/2018	B(34,40,45)
12/12/2018	D40
12/13/2018	B10
12/15/2018	B(34, 60)
12/16/2018	B43
12/17/2018	B(34,40)
12/19/2018	A64, B45
12/20/2018	B(16, 34, 43)
12/22/2018	B45
12/23/2018	**B(34, 40)**
12/24/2018	**B43**
12/25/2018	**B(34, 45)**
12/26/2018	**B(16, 19, 40), D28**
12/27/2018	**B43**
12/28/2018	**B(30, 34, 40, 45)**
12/30/2018	**B(19, 30, 34, 43, 45)**
12/31/2018	**B40, D26**

ATTACHMENT B:

DOOR LEAK DEVIATIONS

Date	Battery	Oven #	Time Observed	P/S	C/S	Duration	Cause(s)	Corrective Action(s)
7/1/2018	A	55	6:00AM	X	X	8 h	sole flues plugged	adjusted uptakes and door holes
7/1/2018	A	59	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	63	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	66	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	60	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	58	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	6	6:39AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	56	8:35 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	57	8:35 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	59	8:35 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	42	8:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	A	44	8:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	6	8:50AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	27	8:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	28	8:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	60	8:54 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/1/2018	B	27	2:00 PM	X		8 h	sole flues plugged	adjusted uptakes and door holes
7/1/2018	B	28	2:00 PM	X		8 h	sole flues plugged	adjusted uptakes and door holes
7/2/2018	A	57	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	A	49	5:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	64	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	32	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	29	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	22	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	21	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	12	5:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/2/2018	B	22	6:00 AM		X	8 h	sole flues plugged - blocks, door holes	adjusted uptakes
7/2/2018	B	64	6:01 AM		X	8 h	sole flues plugged - blocks, door holes	adjusted uptakes
7/3/2018	A	60	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	A	42	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	A	53	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	B	65	1:32 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	B	41	1:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	B	40	1:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	B	37	1:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/3/2018	B	19	1:34 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	A	56	5:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/4/2018	A	63	5:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	A	64	5:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	A	66	5:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	A	50	5:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	B	31	5:20 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	B	18	5:21 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/4/2018	C	31	5:42AM	X		28 min	Potential blockage in C2 HRSG and/or stack	Adjusted sole flues
7/4/2018	B	31	6:00AM		X	8 h	sole flues plugged	adjusted uptakes and door dampers
7/4/2018	B	18	6:00AM		X	8 h	sole flues plugged	adjusted uptakes and door dampers
7/4/2018	A	56	6:02 AM		X	8 h	sole flues plugged	adjusted uptakes and door dampers
7/4/2018	A	64	6:03 AM		X	8 h	sole flues plugged	adjusted uptakes and door dampers
7/5/2018	B	6	12:16 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	20	12:17 PM		X	8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	21	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	32	12:20 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	58	12:27 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	63	12:27 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	46	12:38 PM		X	8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	49	12:38 PM		X	8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	50	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	53	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	57	12:39 PM		X	8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	58	12:39 PM		X	8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	60	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	A	63	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	63	12:57 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	60	12:57 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	58	12:57 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	32	12:58 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	21	12:58 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/5/2018	B	6	12:59 PM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	A	49	12:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	A	55	12:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	B	64	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	B	41	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	B	40	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	B	36	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/6/2018	B	28	12:45 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/7/2018	B	28	6:00AM		X	8 h	plugged sole flues	adjusted utakes and door holes

7/7/2018	B	29	6:00 AM	X	X	8 h	plugged sole flues	adjusted utakes and door holes
7/7/2018	A	49	6:02 AM		X	8 h	plugged sole flues	adjusted utakes and door holes
7/7/2018	A	55	6:02 AM		X	8 h	plugged sole flues	adjusted utakes and door holes
7/7/2018	A	60	6:02 AM	X		8 h	plugged sole flues	adjusted utakes and door holes
7/7/2018	A	66	6:02 AM	X		8 h	plugged sole flues	adjusted utakes and door holes
7/8/2018	A	56	6:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	57	6:20 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	58	6:20 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	63	6:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	B	37	6:25AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	33	6:25 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	31	6:25 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	25	6:25 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	24	6:25 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	21	6:25 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/8/2018	B	6	6:27 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	B	6	6:55 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	B	12	6:55 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	B	20	6:56AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	B	22	6:56AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	56	7:10AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	57	7:10AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	58	7:10AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	59	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/8/2018	A	65	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	A	64	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	64	6:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	58	6:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	41	6:21 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	38	6:21 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	35	6:21AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	32	6:21 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/9/2018	B	12	6:22 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	A	57	5:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	A	59	5:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	A	66	5:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	65	6:06AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	59	6:06AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	40	6:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	36	6:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	28	6:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	23	6:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/10/2018	B	20	6:08 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	26	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	30	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	39	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/10/2018	B	43	10:01 PM	X		8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	60	12:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	63	12:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	49	12:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	50	12:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	55	12:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	B	63	12:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	B	60	12:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	B	35	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	B	29	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	D	3	12:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/11/2018	A	57	10:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/12/2018	B	6	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	28	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	29	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	32	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	38	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	40	1:09 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	62	1:10 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	63	1:10 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	60	1:16 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	63	1:16 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	64	1:16 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	49	1:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	56	1:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	58	1:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	62	1:35 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	56	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	58	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	62	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	59	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	58	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	40	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/12/2018	B	38	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	32	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	19	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	20	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	21	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	22	10:00 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	B	41	10:01 PM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/12/2018	A	50	10:02 PM		X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	A	65	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	A	66	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	B	37	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	B	31	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	B	6	12:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/13/2018	A	64	10:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
7/13/2018	A	66	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/14/2018	A	58	5:48 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	A	63	5:48AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	65	5:52 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	64	5:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/14/2018	B	39	5:53AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	35	5:53 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	27	5:53 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	22	5:54AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	16	5:54AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	12	5:54 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	31	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door holes
7/14/2018	B	64	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door holes
7/15/2018	A	49	6:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	50	6:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	60	6:23AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	38	6:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	29	6:29 AM	X		> 15min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	28	6:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	21	6:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	12	7:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	20	7:16AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	21	7:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	22	7:16AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	23	7:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	28	7:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	29	7:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	36	7:17 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	37	7:17 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/15/2018	B	38	7:17 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	B	40	7:17 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	60	7:30AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	64	7:30AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	65	7:30 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	49	7:31 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	50	7:31 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/15/2018	A	54	7:31 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	A	55	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	A	56	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	A	57	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	A	66	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	63	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	62	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	58	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	41	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	40	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	35	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/16/2018	B	32	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	59	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	23	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	22	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	20	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	6	5:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	D	3	5:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	A	58	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	A	63	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/17/2018	B	23	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/18/2018	B	6	12:30 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	19	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	20	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	31	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	33	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	35	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	40	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	44	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	A	55	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/18/2018	A	56	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	A	59	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	A	63	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	40	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	35	1:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	B	31	1:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	D	35	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/18/2018	A	59	2:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
7/18/2018	B	19	2:02 PM	X		8 hr	sole flues plugged	adjusted uptakes
7/18/2018	B	49	2:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/19/2018	A	64	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	A	65	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	A	66	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	A	49	12:45 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	A	57	12:45 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	B	64	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	B	58	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	B	38	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	B	37	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	B	32	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/19/2018	A	61	2:01 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/19/2018	A	62	2:01 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
7/19/2018	A	64	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	65	2:22 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	63	2:31 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	62	2:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	45	3:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	40	3:30 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	60	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	62	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	63	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	50	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	56	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	58	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	61	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	60	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	36	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	39	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	24	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/20/2018	B	22	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	B	20	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/20/2018	A	49	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	A	50	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	A	56	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	24	2:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	37	2:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	38	2:03 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	60	2:04 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/20/2018	B	64	2:05 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/21/2018	A	55	5:38 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	29	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	28	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	27	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	23	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	19	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/21/2018	B	28	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes, door holes
7/21/2018	B	29	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes, door holes
7/22/2018	A	57	7:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	A	66	7:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	39	7:55AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	31	7:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	21	7:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	20	7:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	6	7:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	A	55	8:10AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	A	59	8:10AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	A	60	8:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	6	8:20AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	20	8:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	21	8:21 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/22/2018	B	31	8:21AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	58	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	44	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	40	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	38	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	35	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	33	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/23/2018	B	32	5:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	A	62	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	A	63	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/24/2018	A	64	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	A	65	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	A	49	5:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	64	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	63	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	62	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	41	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	36	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	23	5:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/24/2018	B	19	5:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	A	60	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	A	66	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	A	56	12:34 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	A	57	12:34 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	A	58	12:34 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	B	59	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	B	58	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	B	21	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/25/2018	B	20	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	12	12:20 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	28	12:20 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	33	12:20 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	39	12:32 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	40	12:32 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	62	12:32 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	A	57	12:45 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	A	65	12:45 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	A	60	12:49 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	39	12:54AM	X		8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	32	12:54 AM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	B	6	12:20 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	32	12:22 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	A	56	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	A	61	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	A	64	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	32	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	6	12:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	D	3	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	38	3:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/26/2018	B	63	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes; door holes
7/26/2018	A	62	10:01 PM	X		8 hr	sole flues plugged	adjusted uptakes; door holes
7/27/2018	C	32	1:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	A	58	1:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/27/2018	A	63	1:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	20	1:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	28	1:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	31	1:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	38	1:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	40	1:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/27/2018	B	64	1:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	A	57	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	A	61	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	A	62	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	A	65	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	A	66	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	B	63	5:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	B	62	5:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	B	58	5:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/28/2018	B	35	5:50 AM	X		8 hr	sole flues plugged	adjusted uptakes; door holes
7/28/2018	B	33	5:50AM	X		8 hr	sole flues plugged	adjusted uptakes; door holes
7/28/2018	B	29	5:50AM	X		8 hr	sole flues plugged	adjusted uptakes; door holes
7/29/2018	A	56	7:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/29/2018	A	60	7:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/29/2018	A	64	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/29/2018	B	65	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/29/2018	B	36	7:05AM	X		8 hr	sole flues plugged	adjusted uptakes
7/29/2018	B	27	7:05AM	X		8 hr	sole flues plugged	adjusted uptakes
7/29/2018	B	22	7:05 AM	X		8 hr	sole flues plugged	adjusted uptakes
7/29/2018	B	21	7:05AM	X		8 hr	sole flues plugged	adjusted uptakes
7/30/2018	A	57	6:58 AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	A	58	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	A	58	6:58AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	A	60	6:58AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	A	62	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	A	63	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	A	63	6:58 AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	A	65	6:58AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	38	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	B	37	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	B	63	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	62	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	38	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	37	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	21	7:05AM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	19	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	B	20	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	B	22	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	B	28	7:11 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

7/30/2018	B	31	7:11 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	A	64	7:19 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/30/2018	A	56	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	19	10:00 PM	X		8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	28	10:00 PM	X		8 hr	sole flues plugged	adjusted uptakes and door crowns
7/30/2018	B	29	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door crowns
7/31/2018	A	57	6:30 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/31/2018	A	59	6:30 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/31/2018	A	66	6:30 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
7/31/2018	A	62	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
7/31/2018	B	6	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/1/2018	B	64	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	62	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	58	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	48	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	43	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	40	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	39	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	31	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	29	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	27	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	21	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	B	20	1:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/1/2018	A	59	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/1/2018	A	61	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/1/2018	A	66	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/1/2018	B	43	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/1/2018	B	64	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/2/2018	B	19	12:22 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	27	12:24 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	28	12:24 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	29	12:24 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	31	12:24 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	32	12:24 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	40	12:36 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	62	12:37 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	63	12:37 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	A	56	12:43 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	A	57	12:43 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	A	61	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	A	62	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	A	56	12:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/2/2018	A	58	12:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	19	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	24	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	25	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	27	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	28	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	32	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	33	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	35	1:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	38	1:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	63	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	65	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/2/2018	B	59	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	A	60	6:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	A	64	6:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	A	65	6:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	A	66	6:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	B	16	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	B	36	6:59 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/3/2018	B	58	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/4/2018	A	59	5:30 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/4/2018	B	40	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/4/2018	B	39	5:36 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/4/2018	B	33	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/4/2018	B	29	5:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	6	5:23AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	A	57	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	A	62	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	A	65	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	64	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	62	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	37	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	27	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	25	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	21	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	19	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/5/2018	B	6	7:10 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	62	7:14AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	B	64	7:14 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/5/2018	A	58	7:20AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	A	56	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	A	58	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	A	63	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	A	66	5:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	B	38	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	B	31	5:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	B	28	5:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	B	22	5:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/6/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/6/2018	B	38	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/6/2018	A	66	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/7/2018	B	12	12:35 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	20	12:36 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	28	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	31	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	32	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	33	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	35	12:38 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	40	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	B	43	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	A	61	1:02 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/7/2018	A	64	1:02 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/8/2018	B	29	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes and door dampers
8/8/2018	B	58	2:00 PM	X		8 hr	sole flues blocked	adjusted uptakes and door dampers
8/8/2018	B	60	4:00 PM	X		8 hr	sole flues blocked	adjusted uptakes and door dampers
8/8/2018	B	63	4:00 PM	X		8 hr	sole flues blocked	adjusted uptakes and door dampers
8/8/2018	B	65	4:00 PM	X		8 hr	sole flues blocked	adjusted uptakes and door dampers
8/8/2018	B	40	4:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/8/2018	D	33	4:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/8/2018	D	3	5:00 PM	X		1 hr 58 min	brick work around flue under repair	adjusted sole flues, draft, and door dampers
8/8/2018	A	58	5:00 PM	X		8 hr	sole flues blocked	adjusted uptakes and door dampers
8/9/2018	A	59	6:20 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	A	66	6:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	38	6:30AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	35	6:31AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	32	6:31 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	25	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/9/2018	B	24	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	21	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	20	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	21	2:00 PM		X	8 hrs	sole flues blocked	adjusted uptakes and door dampers
8/9/2018	B	37	2:00 PM		X	8 hrs	sole flues blocked	adjusted uptakes and door dampers
8/9/2018	A	66	2:02 PM		X	8 hrs	sole flues blocked	adjusted uptakes and door dampers
8/9/2018	B	59	2:56 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	58	3:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	43	3:35 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	42	3:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	28	4:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/9/2018	B	12	4:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/10/2018	B	40	1:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/11/2018	B	31	6:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/11/2018	B	21	6:12AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/11/2018	B	6	6:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/12/2018	B	6	6:00AM		X	8 hr	sole flues blocked	adjusted uptakes & door holes
8/12/2018	B	20	6:00 AM	X	X	8 hr	sole flues blocked	adjusted uptakes
8/12/2018	B	31	6:00 AM		X	8 hr	sole flues blocked	adjusted uptakes
8/12/2018	B	36	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes
8/12/2018	A	60	6:01AM	X	X	8 hr	oven empty, gas shut off (cool down for rebuild)	adjust draft
8/12/2018	B	64	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes
8/13/2018	B	65	5:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	63	5:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	60	5:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	40	5:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	38	5:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	32	5:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/13/2018	B	38	6:00AM		X	8 hr	sole flues plugged	adjusted uptakes & door holes
8/13/2018	B	64	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes & door holes
8/14/2018	B	62	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	59	5:45AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	58	5:45 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	39	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	35	5:46 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	27	5:46AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	19	5:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/14/2018	B	39	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes, door holes
8/14/2018	B	60	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes, door holes
8/15/2018	B	25	2:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/16/2018	B	31	6:00 AM	X	X	8 hr	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/16/2018	B	12	12:56 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/16/2018	B	39	12:57 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/16/2018	B	32	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/17/2018	B	6	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	20	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	22	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	28	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	32	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	36	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	38	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	40	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	60	6:02AM	X		8 hr	sole flues plugged	adjusted uptakes
8/17/2018	B	64	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/18/2018	B	65	6:51 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/18/2018	B	59	6:51 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/18/2018	B	25	6:52 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/18/2018	B	20	6:53 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/19/2018	B	37	6:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	33	6:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	23	6:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	33	6:16 AM		X	8 hr	sole flues plugged	adjusted uptakes
8/19/2018	B	12	6:50AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	20	6:50AM		X	8 hr	sole flues plugged	adjusted uptakes
8/19/2018	B	32	6:50 AM		X	8 hr	sole flues plugged	adjusted uptakes
8/19/2018	B	27	6:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	62	6:55AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	63	6:55 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/19/2018	B	11	10:00 PM		X	8 hr	low draft	adjusted uptakes
8/20/2018	B	32	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/20/2018	B	21	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/20/2018	B	22	10:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
8/21/2018	B	63	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	40	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	31	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	28	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	27	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	25	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	20	7:04AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
8/21/2018	B	19	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/21/2018	B	31	10:00 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
8/22/2018	B	36	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/22/2018	B	58	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/22/2018	B	62	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/22/2018	B	13	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/22/2018	B	25	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/22/2018	B	28	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/22/2018	B	29	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
8/22/2018	B	64	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
8/23/2018	B	6	1:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	38	1:30 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/23/2018	B	64	1:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	6	1:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	38	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	39	1:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	59	2:00 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	64	2:00 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	41	3:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/23/2018	B	22	10:00 PM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
8/23/2018	B	23	10:00 PM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
8/24/2018	B	28	6:50 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/24/2018	B	32	6:50 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/24/2018	B	33	6:50 AM	X		8 hr	sole flues plugged	adjusted uptakes
8/24/2018	B	35	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/24/2018	B	40	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/24/2018	B	42	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/25/2018	B	65	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	31	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	29	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	27	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	25	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	24	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/25/2018	B	20	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
8/26/2018	B	58	6:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	44	6:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	43	6:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	37	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	35	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	23	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	22	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	20	6:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	12	6:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	12	6:58 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	20	6:59AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	22	6:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	28	6:59AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	29	6:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/26/2018	B	23	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes, door dampers
8/27/2018	B	12	1:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	25	1:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	32	1:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	40	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	42	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	59	1:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

8/27/2018	B	62	1:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	63	1:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/27/2018	B	13	2:00 PM	X		8 hr	sole flues blocked	adjusted door holes, uptakes
8/27/2018	B	31	2:00 PM		X	8 hr	sole flues blocked	adjusted door holes, uptakes
8/27/2018	B	33	2:00 PM	X		8 hr	sole flues blocked	adjusted door holes, uptakes
8/27/2018	B	41	2:00 PM	X	X	8 hr	sole flues blocked	adjusted door holes, uptakes
8/27/2018	B	54	2:02 PM	X		8 hr	sole flues blocked	adjusted door holes, uptakes
8/27/2018	B	63	2:03 PM		X	8 hr	sole flues blocked	adjusted door holes, uptakes
8/28/2018	B	6	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	27	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	28	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	32	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	33	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	36	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	38	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	6	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	36	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	38	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/28/2018	B	7	1:32 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/29/2018	B	64	4:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/29/2018	B	58	4:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	B	40	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	B	31	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	B	22	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	B	19	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	B	12	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
8/30/2018	A	2	6:45 PM	X		45 min	Door not seated correctly	Adjusted C/S sole flue and adjusted door
9/2/2018	B	23	4:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/4/2018	B	6	6:00 AM	X	X	8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	28	6:00 AM	X		8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	29	6:00 AM	X		8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	31	6:00 AM	X	X	8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	32	6:00 AM	X		8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	33	6:01 AM	X		8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	37	6:01 AM	X		8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	38	6:01 AM	X	X	8 h	sole flues plugged	adjusted uptakes
9/4/2018	B	59	6:01 AM	X		8 h	sole flues plugged	adjusted uptakes
9/5/2018	B	64	12:52 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	63	12:52 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	48	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	42	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	40	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	36	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	29	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

9/5/2018	B	25	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	16	12:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/5/2018	B	12	12:55 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	7	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	12	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	22	1:00 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	27	1:00 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	28	1:00 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	29	1:00 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	35	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	40	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	44	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	62	1:04 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	22	1:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	43	1:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/6/2018	B	65	1:32 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/7/2018	D	3	7:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/7/2018	D	36	7:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/7/2018	B	6	7:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/7/2018	B	32	7:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/7/2018	B	38	7:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/8/2018	B	19	4:02 AM	X		8 h	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/8/2018	B	63	7:20AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/8/2018	B	6	10:00 PM		X	8 h	sole flues plugged	adjusted uptakes, door hole
9/8/2018	B	23	10:00 PM		X	8 h	sole flues plugged	adjusted uptakes, door hole
9/8/2018	B	39	10:00 PM		X	8 h	sole flues plugged	adjusted uptakes, door hole
9/8/2018	B	59	10:00 PM		X	8 h	sole flues plugged	adjusted uptakes, door hole
9/9/2018	B	64	7:00AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	31	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	64	7:00 AM		X	8 h	sole flues plugged	adjusted sole flues
9/9/2018	B	31	7:00AM		X	8 h	sole flues plugged	adjusted sole flues
9/9/2018	B	28	7:00 AM	X	X	8 h	sole flues plugged	adjusted sole flues
9/9/2018	B	12	7:40AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	23	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	24	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	25	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	27	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	29	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	32	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	35	7:41 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

9/9/2018	B	40	7:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	42	7:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	43	7:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low/ loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	44	7:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/9/2018	B	63	7:44 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	59	2:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	41	2:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	38	2:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	37	2:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	36	2:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	32	2:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	29	2:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	23	2:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	22	2:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	21	2:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	20	2:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	7	2:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/10/2018	B	11	10:00 PM		X	8 hr	low draft, HRSG offline, Bailey power supply issues	adjust uptakes and door holes
9/10/2018	B	20	10:00 PM		X	8 hr	sole flues blocked	adjust uptakes and door holes
9/10/2018	B	30	10:00 PM		X	8 hr	sole flues blocked	adjust uptakes and door holes
9/10/2018	B	37	10:01 PM		X	8 hr	sole flues blocked	adjust uptakes and door holes
9/11/2018	B	6	12:58 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	12	12:58 PM		X	> 45 min	plugged sole flues, floor drops, and / or low/ loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	19	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	22	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	25	1:01 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	32	1:02 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	33	1:02 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	35	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	38	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	40	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	41	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	62	1:05 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	D	36	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	6	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	19	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/11/2018	B	40	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/12/2018	B	60	10:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/12/2018	B	64	10:00 PM		X	8 hr	sole flues plugged	adjust uptakes

9/13/2018	B	65	7:01AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/13/2018	B	64	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/13/2018	B	32	7:02AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/13/2018	B	28	7:02AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/13/2018	A	30	2:30 PM	X		> 15 min	Recently rebuilt oven undergoing audit to ensure proper operation.	Adjusted sole flues and increased draft.
9/14/2018	B	19	10:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/14/2018	B	21	10:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/14/2018	B	29	10:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/14/2018	B	31	10:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/14/2018	B	38	10:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/14/2018	B	40	10:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	58	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	43	6:59AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	33	6:59 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	27	6:59 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	25	6:59 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	20	6:59AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/15/2018	B	24	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/15/2018	B	27	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/15/2018	B	33	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/15/2018	B	43	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/16/2018	B	31	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes
9/17/2018	B	42	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	40	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	38	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	37	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	32	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	28	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	25	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	16	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	12	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	6	6:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	6	10:00 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	7	10:00 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	12	10:00 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	28	10:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	32	10:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	37	10:03 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

9/17/2018	B	38	10:04 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	40	10:04 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	65	10:07 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	36	10:12 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	60	10:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/17/2018	B	63	10:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/18/2018	B	31	2:00 PM	X	X	8 hr	sole flues blocked	adjust uptakes - draft
9/18/2018	B	39	2:00 PM		X	8 hr	sole flues blocked	adjust uptakes - draft
9/18/2018	B	64	2:00 PM	X	X	8 hr	sole flues blocked	adjust uptakes - draft
9/19/2018	B	19	3:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/19/2018	B	36	3:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/19/2018	B	58	3:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/19/2018	B	63	3:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	65	6:40AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	40	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	39	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	32	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	29	6:41AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	28	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	25	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	12	6:42 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	12	7:35 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	28	7:36AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	29	7:36AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	32	7:36 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	33	7:36 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	36	7:36AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	40	7:38 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/20/2018	B	63	7:39 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/21/2018	B	26	6:00 AM	X		8 hr	sole flues plugged	adjust uptakes
9/21/2018	B	29	6:00 AM	X		8 hr	sole flues plugged	adjust uptakes
9/21/2018	B	39	6:00 AM	X	X	8 hr	sole flues plugged	adjust uptakes
9/21/2018	B	42	6:01AM	X	X	8 hr	sole flues plugged	adjust uptakes
9/22/2018	D	3	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/22/2018	B	26	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes, door dampers
9/22/2018	B	31	2:00 PM	X	X	8 hr	sole flues plugged	adjust uptakes, door dampers
9/23/2018	B	6	6:00AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	12	6:00 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	20	6:00 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	21	6:00 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	22	6:00 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	25	6:00 AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	33	6:01 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	38	6:01 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	40	6:01AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	43	6:01 AM		X	8 hr	sole flues blocked	adjust uptakes

9/23/2018	B	58	6:02 AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	B	62	6:02 AM		X	8 hr	sole flues blocked	adjust uptakes
9/23/2018	D	32	6:45 AM	X		32 min	low draft	adjusted draft, closed C/S sole flue
9/24/2018	B	28	6:00 AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/24/2018	B	59	6:00 AM	X		8 hr	sole flues blocked	adjust uptakes
9/24/2018	B	60	6:00 AM	X		8 hr	sole flues blocked	adjust uptakes
9/24/2018	B	64	6:00AM	X	X	8 hr	sole flues blocked	adjust uptakes
9/25/2018	B	27	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	32	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	33	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	34	6:01AM	X	X	8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	43	6:01AM	X	X	8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	44	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	48	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	63	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	65	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/25/2018	B	39	7:30AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/26/2018	B	40	3:38 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	38	3:38 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	36	3:38 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	31	3:38 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	22	3:39 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	21	3:39 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	20	3:39 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	16	3:39 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	12	3:40 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/26/2018	B	19	3:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	D	56	12:40 PM		X	> 45 min	Maintenance in progress on oven, C/S	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	27	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	31	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	32	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	45	12:48 PM		X	8 hr	sole flues plugged	adjusted uptakes
9/27/2018	B	58	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	D	56	12:54 PM	X		> 15 min	Maintenance in progress on oven, C/S	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	27	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	32	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	39	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	41	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/27/2018	B	42	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	6	6:48 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	19	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	20	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	28	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	33	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	35	6:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	37	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	44	6:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/28/2018	B	62	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	60	6:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

9/29/2018	B	58	6:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	43	6:35AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	40	6:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	29	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	25	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	22	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/29/2018	B	12	6:36 AM	X		8 hr	sole flues plugged	adjusted uptakes
9/30/2018	B	63	6:39AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	38	6:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	63	6:39 AM		X	8 hr	sole flues plugged	adjusted uptakes
9/30/2018	B	38	6:39 AM		X	8 hr	sole flues plugged	adjusted uptakes
9/30/2018	B	21	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	21	6:40 AM		X	8 hr	sole flues plugged	adjusted uptakes
9/30/2018	B	6	6:41AM		X	8 hr	sole flues plugged	adjusted uptakes
9/30/2018	B	12	7:50 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	20	7:51AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	22	7:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	27	7:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	31	7:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	32	7:51 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	45	7:53 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
9/30/2018	B	65	7:54AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/1/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	31	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	36	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	39	6:01AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	23	10:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
10/1/2018	B	33	10:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	62	7:33 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	43	7:33 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	40	7:33AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	28	7:34 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	25	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/2/2018	B	20	7:34AM	X		8 hr	sole flues plugged	adjusted uptakes
10/3/2018	B	65	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	60	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	58	12:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	45	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	42	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	41	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	39	12:42 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	37	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	35	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	32	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	29	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/3/2018	B	27	12:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	22	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	21	12:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/3/2018	B	6	12:45 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	6	12:36 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	21	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	22	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	27	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	31	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	32	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	33	12:39 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	35	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	38	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	62	12:44 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	38	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/4/2018	B	31	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	D	56	12:00 AM	X	X	4 hr 22 min	D56 was under going repairs, no sole flue damper present on C/S	adjusted door holes and uptakes
10/5/2018	B	63	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	58	12:46 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	40	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	36	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	28	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	19	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/5/2018	B	63	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door holes
10/6/2018	B	64	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	59	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	43	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	42	7:04AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	39	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	35	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	27	7:05AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	12	7:05AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/6/2018	B	13	2:00 PM	X		8 hr	sole flues blocked	adjusted uptakes/door holes
10/6/2018	B	42	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes/door holes
10/6/2018	B	64	2:01 PM		X	8 hr	sole flues blocked	adjusted uptakes/door holes
10/7/2018	B	27	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/7/2018	B	32	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/7/2018	B	35	7:37 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/7/2018	B	65	7:40 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	38	7:16 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	33	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	6	7:17 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/8/2018	B	6	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/9/2018	B	65	6:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	64	6:39 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	43	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	40	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	39	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	31	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	29	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	25	6:40 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	23	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	22	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	21	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	20	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	19	6:41 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/9/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	23	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	64	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/9/2018	B	65	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes/door dampers
10/10/2018	B	60	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	42	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	37	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	32	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/10/2018	B	12	12:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	63	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	58	12:58 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	40	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	35	12:59 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/11/2018	B	26	1:00 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	24	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	25	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	27	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	37	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	38	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	63	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/12/2018	B	16	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	23	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	24	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	25	1:27 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	27	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	29	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	33	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	38	1:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	39	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	41	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/12/2018	B	59	1:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/13/2018	B	6	6:00 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	19	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	22	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	28	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	31	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	39	6:01AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	42	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	43	6:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	60	6:02 AM	X		B hr	sole flues blocked	adjusted uptakes and door holes
10/13/2018	B	62	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
10/14/2018	B	12	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	20	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	21	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	32	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	35	6:01 AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	36	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	40	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	44	6:02AM		X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	64	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
10/14/2018	B	22	8:30 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	21	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	27	12:17 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	37	12:18 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	41	12:22 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	59	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	63	12:23 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	25	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	33	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	35	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	36	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	37	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	39	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	59	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	63	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/15/2018	B	65	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/16/2018	B	43	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	42	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	35	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	32	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	29	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	28	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	27	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	24	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	23	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	19	12:26 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/16/2018	B	7	12:28 PM	X		> 15 min	follow up repairs for sole flue	adjusted uptakes and door holes
10/17/2018	B	60	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	58	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	41	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	40	2:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	38	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	22	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	20	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	12	2:06 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/17/2018	B	6	2:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	64	11:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	62	11:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	39	11:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	36	11:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	31	11:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	27	11:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	21	11:53 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	25	2:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/18/2018	B	6	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	19	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	21	10:00 PM		X	8 hr	sole flues blocked	adjusted draft
10/19/2018	B	35	10:01 PM	X		8 hr	sole flues blocked	adjusted draft
10/19/2018	B	47	10:01 PM	X		8 hr	sole flues blocked	adjusted draft
10/19/2018	B	59	10:01 PM	X	X	8 hr	sole flues blocked	adjusted draft
10/20/2018	B	63	7:33 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	32	7:34 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	19	7:34 AM	X		8 hr	sole flues plugged	adjusted uptakes
10/20/2018	B	28	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/20/2018	B	29	12:33 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/20/2018	B	40	12:35 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	33	4:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/21/2018	B	25	5:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	39	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	38	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	37	7:13 AM	X		> 15 min	plugged soleflues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	35	7:13 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	27	7:14 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	24	7:14 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	22	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	25	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	28	8:15 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	38	8:16 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/21/2018	B	63	8:19 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	31	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	22	6:58AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	21	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/22/2018	B	6	6:58 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	65	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	64	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	60	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	58	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	40	6:54AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	36	6:54 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	28	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	20	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/23/2018	B	19	6:55 AM	X		> 15 min	plugged soleflues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/24/2018	B	32	2:01 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/24/2018	B	22	2:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	12	12:21 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	63	12:26 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	12	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/25/2018	B	63	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	6	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	20	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	21	12:11 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	31	12:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/26/2018	B	32	12:12 PM	X		> 15 min	plugged soleflues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

10/26/2018	B	38	12:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/27/2018	B	6	7:00 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	19	7:00 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	21	7:00AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	25	7:00AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	31	7:01 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	33	7:01 AM	X	X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	36	7:01AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	37	7:01AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	38	7:01 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	58	7:02 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	59	7:02 AM	X		8 hr	sole flues blocked	adjusted door holes and uptakes
10/27/2018	B	64	7:02 AM		X	8 hr	sole flues blocked	adjusted door holes and uptakes
10/29/2018	B	40	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/29/2018	B	27	7:05 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	28	7:05AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	33	7:05 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
10/29/2018	B	40	7:06AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/30/2018	B	65	7:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	63	7:33 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	32	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	31	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/30/2018	B	19	7:34 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	38	12:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	36	12:28 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	22	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	21	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	16	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	12	12:29 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	6	12:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
10/31/2018	B	6	12:30 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	19	12:31 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	22	12:31 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	31	12:32 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
10/31/2018	B	63	12:32 PM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/1/2018	B	27	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	33	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	35	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	36	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	37	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	38	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	62	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	65	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	37	1:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/1/2018	B	62	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	64	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	59	12:23 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/2/2018	B	40	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	33	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	32	12:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	28	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	27	12:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/2/2018	B	30	5:14 PM	X		1 hr 22 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/3/2018	B	19	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	25	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	31	6:01 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	35	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/3/2018	B	64	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes
11/4/2018	B	19	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	20	6:00AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	22	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	23	6:00AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	24	6:00 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	27	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	28	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	32	6:01 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	34	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	35	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	36	6:02AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	40	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	41	6:02 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	48	6:03 AM		X	8 hr	sole flues plugged	adjusted updates
11/4/2018	B	63	6:03 AM	X		8 hr	sole flues plugged	adjusted updates
11/4/2018	B	65	6:03 AM	X		8 hr	sole flues plugged	adjusted updates
11/5/2018	B	38	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	36	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	32	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	21	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	20	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/5/2018	B	6	12:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	12	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	16	12:56 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	21	12:56 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	28	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	33	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	38	12:59 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	62	1:03 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	25	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	28	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	29	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	30	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	33	1:36 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	34	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	35	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/6/2018	B	39	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	41	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	48	1:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	58	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	59	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	60	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/6/2018	B	62	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	43	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	42	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	40	1:24 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	31	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	27	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	22	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	16	1:25 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/7/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	31	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	41	2:00 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	42	2:02 PM		X	8 hr	sole flues plugged	adjusted updates
11/7/2018	B	63	2:02 PM		X	8 hr	sole flues plugged	adjusted updates
11/8/2018	B	36	6:35 AM	X		8 hr	sole flues plugged	adjusted door holes, updates
11/8/2018	B	37	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/8/2018	B	35	6:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/8/2018	B	32	6:37 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/8/2018	B	19	6:38 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/9/2018	B	12	12:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	19	12:00 PM		X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	20	12:00 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	21	12:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	23	12:01 PM	X	X	8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	24	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	25	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	28	12:01 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	33	12:02 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	39	12:02 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/9/2018	B	65	12:03 PM	X		8 hr	sole flues plugged	adjusted uptakes and door holes
11/10/2018	B	27	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	38	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	40	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	42	6:01AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	43	6:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	45	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	46	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	48	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes, door holes
11/10/2018	B	35	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/10/2018	B	34	6:32 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/10/2018	B	6	10:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
11/11/2018	B	64	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	63	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	45	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/11/2018	B	39	7:00 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	64	7:00AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	32	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	31	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	22	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	20	7:01 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/11/2018	B	32	7:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	31	7:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/11/2018	B	27	7:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
11/12/2018	B	37	7:25AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	35	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	33	7:26AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/12/2018	B	19	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	64	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	48	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	42	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	41	6:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	40	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	36	6:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	25	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/13/2018	B	21	6:11 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	39	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	35	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	28	12:53 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	22	12:54 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/14/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/14/2018	B	64	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/15/2018	B	6	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	20	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	31	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	32	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	33	12:42 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	38	12:43 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	58	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	63	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	6	1:12 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	20	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	31	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	32	1:13 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/15/2018	B	38	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	58	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	59	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	60	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	62	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/15/2018	B	65	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/16/2018	B	16	7:00AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	21	7:00AM		X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	23	7:00AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	28	7:00 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	29	7:01AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	33	7:01 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	35	7:01AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	36	7:02AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	40	7:02 AM	X	X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	45	7:02 AM	X		8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	59	7:03 AM		X	8 hr	sole flues plugged	adjusted door holes/uptakes
11/16/2018	B	27	7:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/16/2018	B	7	7:13 AM	X		3 hrs 2 min	follow up repairs for sole flue	Increased draft and adjusted sole flue
11/17/2018	B	63	6:52 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	37	6:53 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	33	6:53AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	21	6:53 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	16	6:54AM	X		8 hr	sole flues plugged	adjusted uptakes
11/17/2018	B	65	7:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/17/2018	B	62	7:28 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/17/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	C	36	4:00AM	X		16 min	low draft	Adjusted sole flues and crowns
11/18/2018	B	19	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	20	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	22	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	25	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	31	6:01AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	32	6:01AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	35	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	38	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/18/2018	B	39	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	C	35	4:48 AM	X		26 min	low draft	Adjusted sole flues and crowns
11/19/2018	B	12	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	33	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	34	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	36	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	39	6:01AM		X	8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	40	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	58	6:03 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/19/2018	B	60	6:03AM	X		8 hr	sole flues plugged	adjusted uptakes
11/20/2018	C	16	3:42 AM	X		19 min	low draft	Adjusted crowns and sole flues.
11/20/2018	B	65	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	62	12:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	39	12:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	35	12:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	29	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/20/2018	B	28	12:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	6	12:52 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	28	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/21/2018	B	32	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	33	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	41	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	44	12:55 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	59	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	32	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	21	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	19	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	B	6	1:16 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/21/2018	C	33	11:00 PM	X		30 min	low draft	Adjusted crowns and sole flues.
11/22/2018	B	31	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	37	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	38	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/22/2018	B	64	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	28	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	29	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	36	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	39	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	40	6:00AM	X	X	8 hr	sole flues plugged	adjusted uptakes
11/23/2018	B	63	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	20	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	35	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
11/24/2018	B	62	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	65	6:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	60	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	58	6:51AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	40	6:51 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	65	6:51AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	40	6:51 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	32	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	31	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	22	6:52AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	21	6:52 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/25/2018	B	32	6:52AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	31	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	28	6:52AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	22	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/25/2018	B	20	6:52 AM		X	8 hr	sole flues plugged	adjusted uptakes
11/26/2018	B	45	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	43	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	42	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	39	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	38	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	36	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	35	7:35 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/26/2018	B	33	7:36AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	48	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

11/27/2018	B	37	6:49 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	28	6:50AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/27/2018	B	6	6:50 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	64	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	63	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	62	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	60	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	58	1:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	41	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	40	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	35	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	33	1:04 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	23	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	22	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	20	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	16	1:05 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/28/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	21	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	22	2:00 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	38	2:01 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	41	2:02 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	60	2:02 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/28/2018	B	64	2:03 PM		X	8 hr	sole flues plugged	adjusted uptake and door holes
11/29/2018	B	12	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	16	12:48 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	25	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	27	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	31	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	32	12:51 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	42	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	44	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	21	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and/ or draft
11/29/2018	B	25	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	27	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	31	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	32	1:43 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/29/2018	B	39	1:44 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/30/2018	B	16	6:00AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	19	6:00 AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	21	6:00 AM		X	8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	35	6:01 AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	38	6:01AM	X		8 hr	sole flue blocked	adjust uptakes, door holes
11/30/2018	B	63	6:02 AM		X	8 hr	sole flue blocked	adjust uptakes, door holes

11/30/2018	B	16	8:02AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
11/30/2018	D	3	8:22AM	X		1 hr 53 min	low draft	adjusted sole flue and increased draft
12/2/2018	B	65	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	58	7:25AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	40	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	37	7:25 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	32	7:26AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	31	7:26AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	20	7:26 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	6	7:26AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	6	7:53 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	31	7:54AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	32	7:54 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/2/2018	B	58	7:57 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	64	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	63	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	62	12:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	35	12:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	25	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	23	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	22	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/3/2018	B	21	12:19 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	20	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	21	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	22	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	27	12:40 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	38	12:41 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	41	12:44 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	59	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	63	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	64	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	59	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	48	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	40	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	38	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	30	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	28	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/4/2018	B	20	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	19	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/4/2018	B	23	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/5/2018	B	58	12:30 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/5/2018	B	33	12:31 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	27	8:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	25	8:07 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/6/2018	B	58	2:00 PM		X	8 hr	sole flues plugged	adjust uptakes and door
12/7/2018	B	6	2:00 PM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	32	2:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	40	2:00 PM	X		8 hr	sole flues plugged	adjusted uptakes
12/7/2018	B	64	2:37 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	64	7:03AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	63	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	60	7:03 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	59	7:03AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	39	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	38	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	36	7:04 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	34	7:05 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	31	7:05AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/8/2018	B	31	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	38	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	59	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/8/2018	B	64	2:03 PM		X	8 hr	sole flues blocked	adjusted uptakes
12/9/2018	C	53	4:27 AM		X	50 min	low draft	adjusted sole flues and dampers
12/9/2018	B	65	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	58	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	35	6:55 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	23	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	22	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	21	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	20	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	19	6:56AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	12	6:57 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	28	7:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	30	7:01 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	34	7:02AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	35	7:02 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/9/2018	B	12	7:25 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	20	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	22	7:26 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/9/2018	B	23	7:26AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/9/2018	B	32	7:26 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/10/2018	B	40	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/10/2018	B	27	12:47 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	27	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	32	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	36	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	62	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	36	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	35	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	33	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	32	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/11/2018	B	25	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	44	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	41	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	39	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	38	12:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	31	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	28	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/12/2018	B	24	12:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/13/2018	B	37	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	60	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	64	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/13/2018	B	6	7:12 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	40	12:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	29	12:02 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	22	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	21	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	16	12:03 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/14/2018	B	6	2:00 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/14/2018	B	31	2:01 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/14/2018	B	60	2:02 PM		X	8 hr	sole flues plugged	adjusted uptakes
12/15/2018	B	63	7:18 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	62	7:18 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	25	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	B	24	7:19 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/15/2018	D	41	7:27 AM	X		3 hr 33 min	door not properly sealed due to lintel damage	adjusted sole flues and dampers
12/15/2018	D	3	7:27 AM	X		3 hr 33 min	low draft	adjusted sole flues and dampers
12/16/2018	B	43	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	38	7:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	64	7:28 AM		X	8 hr	sole flues plugged	adjusted uptakes

12/16/2018	B	32	7:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	31	7:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	31	7:29 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/16/2018	B	22	7:29 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/16/2018	B	28	7:56 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	41	7:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/16/2018	B	44	7:59 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	60	7:09AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	59	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	47	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	45	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	40	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	35	7:09 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	33	7:10AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/17/2018	B	12	7:10 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	39	7:14AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	24	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	22	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	21	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	20	7:15AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/18/2018	B	19	7:15 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	6	12:26 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	22	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	27	12:28 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	32	12:29 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	41	12:32 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	62	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	64	12:33 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	65	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	64	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	62	1:07 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	36	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	32	1:08 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	25	1:09 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/19/2018	B	6	1:10 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	40	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	38	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/20/2018	B	37	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	35	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	33	1:17 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/20/2018	B	28	1:18 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	63	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	58	1:20 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	39	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	34	1:21 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/21/2018	B	31	1:22 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	59	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	42	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	41	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	40	8:28AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	36	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	35	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	34	8:28 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	32	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	27	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	25	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	24	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	23	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	22	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	21	8:29AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	19	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	16	8:29 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	27	8:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	31	8:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	32	8:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	33	8:43 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	36	8:43AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	40	8:46 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/23/2018	B	63	8:47 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/24/2018	B	21	6:00 AM		X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	23	6:00AM		X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	8	28	6:00AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	29	6:01 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	39	6:01AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	65	6:02AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	43	6:02 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	62	6:02 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/24/2018	B	64	6:02AM	X	X	8 hr	sole flues plugged	adjusted uptakes

12/25/2018	B	28	6:00AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/25/2018	B	38	6:00 AM	X	X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/25/2018	B	59	6:00 AM		X	8 hr	sole flues blocked	adjusted uptakes, door holes
12/26/2018	B	6	12:45 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	20	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	22	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	26	12:46 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	31	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	32	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	33	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	34	12:49 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	35	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	37	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	40	12:50 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	44	12:53 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	63	12:54 PM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	58	1:38 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	40	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	37	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	32	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	31	1:39 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	20	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	19	1:40 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/26/2018	B	6	1:41 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	63	1:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	60	1:48 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	43	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	39	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	36	1:49 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	35	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	28	1:50 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	21	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	27	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	25	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	23	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/27/2018	B	22	1:51 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	42	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	38	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft

12/28/2018	B	35	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	34	1:14 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	27	1:15 PM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/28/2018	B	21	2:00 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/28/2018	B	43	2:02 PM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/29/2018	B	62	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	58	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	33	7:23 AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/29/2018	B	32	7:24AM	X		> 15 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/30/2018	B	16	6:00AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	19	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	20	6:00 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	22	6:00 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	23	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	28	6:01AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	29	6:01 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	31	6:01 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	33	6:02 AM		X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	36	6:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	40	6:02 AM	X		8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	64	6:02 AM	X	X	8 hr	sole flues blocked	adjusted uptakes and door holes
12/30/2018	B	31	8:26 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/30/2018	B	32	8:26 AM		X	> 45 min	plugged sole flues, floor drops, and / or low / loss of draft	contacted CCR, adjusted sole flues, uptakes, door dampers and / or draft
12/31/2018	B	6	6:00 AM	X		8 hr	sole flues plugged	adjusted uptakes
12/31/2018	B	29	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes
12/31/2018	B	65	6:00 AM	X	X	8 hr	sole flues plugged	adjusted uptakes

SunCoke Energy™

SunCoke Energy, Inc.
3210 Watling St.
MC 2-990
East Chicago, IN 46312
219-378-3900 Phone
219-397-4590 Fax

April 3, 2019

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204 – 2251

RE: Annual Compliance Certification – Permit No. T089-30043-00382

In accordance with the general reporting requirements established in Condition B.9(a) of T089-35127-00382, (Part 70 Operating Permit Renewal No. T089-30043-00382), attached you will find Indiana Harbor Coke Company's (IHCC) Part 70 Operating Permit Annual Compliance Certification for the reporting period from January 1, 2018 to December 31, 2018. If you have any questions regarding this report, please contact me at (219) 378-3968 or email me at jlkirby@suncoke.com.

Sincerely,

Justin L. Kirby
Environmental Manager

cc:

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch-Indiana (AE-17J)
77 Jackson Boulevard
Chicago, IL 60604-3590

Attachments:
Part 70 Operating Permit - Annual Compliance Certification Report for 2018

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

PART 70 / FESOP PERMIT- ANNUAL COMPLIANCE CERTIFICATION

This form can be used to satisfy the annual compliance certification requirements for Part 70 sources under 326 IAC 2-7-5, 326 IAC 2-7-6(5)(C)and FESOP sources under 326 IAC 2-8-5(a)(1)(C).

SOURCE INFORMATION					
(1) Source name:	Indiana Harbor Coke Company L.P. – contractor of Arcelor Mittal Steel – Indiana Harbor East				
(2) Source address:	3210 Watling Street, MC 2 – 990				
(3) City:	East Chicago	(4) State:	Indiana	(5) Zip code:	46312
(6) Mailing address: (if different from above)	3210 Watling Street, MC 2 – 990				
(7) Mailing City:	East Chicago	(8) Mailing State:	Indiana	(9) Mailing Zip code:	46312
(10) Permit numbers:	T089-30043-00382	(11) Reporting Period:	January 1, 2018 to December 31, 2018		
(12) Contact person:	Justin L. Kirby	(13) Email Address:	jlkirby@suncoke.com		
(14) Phone number:	219-378-3968	(15) Fax number:	219-397-4590		
(16) Comments:					

SOURCE COMPLIANCE INFORMATION
(17) CHECK THE BOX NEXT TO EITHER (A) OR (B) BELOW. (The terms "continuous compliance" and "intermittent compliance" are defined on the Definitions page).

(A) This source was in **CONTINUOUS COMPLIANCE** with **all of the permit terms and conditions** that impose a work practice or emission standard or requires performance testing, monitoring, record keeping or reporting based on the monitoring methods in the permit.	
(B) This source was in **CONTINUOUS COMPLIANCE** with **all of the permit terms and conditions** that impose a work practice or emission standard or requires performance testing, monitoring, record keeping or reporting based on the monitoring methods in the permit, **except** for the terms and conditions listed in the following table for which the source reported intermittent compliance.	X

IMPORTANT: If you select option (B), you must complete the following table in which you list any permit terms for which compliance was intermittent during the permit for the reporting period covered by this Compliance Certification.

Source Name: Indiana Harbor Coke Company L.P. – contractor of Arcelor Mittal Steel – Indiana Harbor East			**Source Permit Number:** T089-30043-00382
Permit Term/ Condition	**Description of Permit Condition**	***Method Codes**	**Report Date/Comments**
C.5(k)	Fugitive PM Emissions	VE RR	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report
D.1.4(a)	Lead Limitation	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.5(c)	Particulate Matter (PM) Limit	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.6(b)(1)	Fugitive PM Emissions	INSP RR	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report
D.1.9(a)(5)	SO2 Limit	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.9(b)	Daily Venting Limit	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.12(a)	Particulate Control	RR RK	1st Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018
D.1.12(b)	Particulate Control	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019

Permit Term/ Condition	Description of Permit Condition	*Method Codes	Report Date/Comments
D.1.13 / D1.18	Duct Temperature	RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report
D.1.16	Parametric Monitoring	INSP RK	1st Quarterly Deviation Report
E.2.2(c)	NESHAP – Door Leaks	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019
E.2.2(c)	NESHAP – Common Tunnel Pressure	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019

*Method Codes:
Monitoring methods: CEMS = continuous emissions monitoring system; COMS = continuous opacity monitoring system; ST = stack test; VE = visible emissions; RK = record keeping; RR = review of records; MB = mass balance; EF = emissions factor; Insp = inspections; FA = fuel analysis; WP = work practice; PM = parametric monitoring; Calc = calculations; O = other (specify in Comments)

For Part 70 sources: The submittal by the Permittee requires the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

For FESOP sources: The notification which shall be submitted by the Permittee requires the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.			
Signature:	Patrick H Nigl	Title/Position:	General Manager
Printed Name:	Patrick Nigl	Date:	April 3, 2019
Phone number:	219-378-3902	Email Address:	pgnigl@suncoke.com

PLEASE NOTE: YOU MUST EITHER SIGN THIS FORM OR ATTACH THE CERTIFICATION FORM INCLUDED IN YOUR PERMIT.

SunCoke Energy™

SunCoke Energy, Inc.
3210 Watling St
MC 2-990
East Chicago, IN 46312
219-378-3900 Phone
219-397-4590 Fax

April 3, 2019

United States Environmental Protection Agency, Region V
Air and Radiation Division
Air Enforcement Branch – Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, IL 60604-3590

RE: Annual Compliance Certification – Permit No. T089-30043-00382

Attached you will find Indiana Harbor Coke Company's (IHCC) Part 70 Operating Permit Annual Compliance Certification for the reporting period from January 1, 2018 to December 31, 2018. If you have any questions regarding this report, please contact me at (219) 378-3968 or email me at jlkirby@suncoke.com.

Sincerely,

Justin L. Kirby
Environmental Manager

cc:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204 – 2251

Attachments:
Part 70 Operating Permit - Annual Compliance Certification Report for 2018

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

PART 70 / FESOP PERMIT- ANNUAL COMPLIANCE CERTIFICATION

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(7) Mailing City:	East Chicago	(8) Mailing State:	Indiana	(9) Mailing Zip code:	46312
(10) Permit numbers:	T089-30043-00382	(11) Reporting Period:	January 1, 2018 to December 31, 2018		
(12) Contact person:	Justin L. Kirby	(13) Email Address:	jlkirby@suncoke.com		
(14) Phone number:	219-378-3968	(15) Fax number:	219-397-4590		
(16) Comments:					

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IMPORTANT: If you select option (B), you must complete the following table in which you list any permit terms for which compliance was intermittent during the permit for the reporting period covered by this Compliance Certification.

Source Name: Indiana Harbor Coke Company L.P. – contractor of Arcelor Mittal Steel – Indiana Harbor East			**Source Permit Number:** T089-30043-00382
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D.1.6(b)(1)	Fugitive PM Emissions	INSP RR	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report
D.1.9(a)(5)	SO2 Limit	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.9(b)	Daily Venting Limit	Calc RR	2nd Quarterly Deviation Report EORs submitted: May 11, 2018
D.1.12(a)	Particulate Control	RR RK	1st Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018
D.1.12(b)	Particulate Control	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019

Permit Term/ Condition	Description of Permit Condition	*Method Codes	Report Date/Comments
D.1.13 / D1.18	Duct Temperature	RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report
D.1.16	Parametric Monitoring	INSP RK	1st Quarterly Deviation Report
E.2.2(c)	NESHAP – Door Leaks	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 3rd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019
E.2.2(c)	NESHAP – Common Tunnel Pressure	WP RK	1st Quarterly Deviation Report 2nd Quarterly Deviation Report 4th Quarterly Deviation Report 1st Half Semiannual Compliance Certification submitted on July 20, 2018 2nd Half Semiannual Compliance Certification submitted on January 24, 2019

*Method Codes:
Monitoring methods: CEMS = continuous emissions monitoring system; COMS = continuous opacity monitoring system; ST = stack test; VE = visible emissions; RK = record keeping; RR = review of records; MB = mass balance; EF = emissions factor; Insp = inspections; FA = fuel analysis; WP = work practice; PM = parametric monitoring; Calc = calculations; O = other (specify in Comments)

For Part 70 sources: The submittal by the Permittee requires the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

For FESOP sources: The notification which shall be submitted by the Permittee requires the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.			
Signature:	Patrick H Nigl	Title/Position:	General Manager
Printed Name:	Patrick Nigl	Date:	April 3, 2019
Phone number:	219-378-3902	Email Address:	pgnigl@suncoke.com

PLEASE NOTE: YOU MUST EITHER SIGN THIS FORM OR ATTACH THE CERTIFICATION FORM INCLUDED IN YOUR PERMIT.

Attachment F

List of Lightning Stand-downs

Date	Delay	A/B PCM (minutes)	C/D PCM (minutes)	Shift	Lightning Stand Down Start Time	Lightning Stand Down End Time
10/31/2018	Lightning Stand Down	60	60	T1	23:37	00:37
12/01/2018	Lightning Stand Down	60	60	T3	15:33	16:33
12/01/2018	Lightning Stand Down	20	20	T3	18:43	19:03
12/02/2018	Lightning Stand Down	30	30	T1	03:50	04:20
02/07/2019	Lightning Stand Down	30	30	T3	15:30	16:00
03/15/2019	Lightning Stand Down	30	0	T3	15:30	16:00
03/26/2019	Lightning Stand Down	90	90	T3	14:15	15:45

Attachment G

List of Coke Oven Leaks Caused by High Winds

Shift	Battery	Oven #	Date	Time Leak Noticed	P/S Leak End Time	P/S Leak Duration (hh:mm)	C/S Leak End Time	C/S Duration (hh:mm)	Crown P/S Leak End Time	Crown P/S Duration (hh:mm)	Crown C/S Leak End Time	Crown C/S Duration (hh:mm)	Wind Direction	Wind Speed (mph)	Wind Related?
1	C	1	11/5/2018	11:00 PM		-	11:01 PM	0:01		-		-	W	29 mph	Y
1	C	13	11/5/2018	11:10 PM		-	11:11 PM	0:01		-		-	W	29 mph	Y
3	C	14	11/5/2018	7:49 PM	7:55 PM	0:06		-		-		-	W	29 mph	Y
3	C	18	11/5/2018	7:49 PM		-	8:03 PM	0:14		-		-	W	29 mph	Y
2	C	31	11/5/2018	7:00 AM	7:01 AM	0:01		-		-		-	W	29 mph	Y
3	C	34	11/5/2018	8:30 PM	8:41 PM	0:11		-		-		-	W	29 mph	Y
1	C	37	11/5/2018	11:32 PM		-	11:33 PM	0:01		-		-	W	29 mph	Y
3	C	50	11/5/2018	9:00 PM	9:08 PM	0:08		-		-		-	W	29 mph	Y
1	C	53	11/5/2018	11:50 PM		-	11:51 PM	0:01		-		-	W	29 mph	Y
3	C	54	11/5/2018	9:00 PM	9:14 PM	0:14		-		-		-	W	29 mph	Y
2	C	31	11/6/2018	7:00 AM	7:01 AM	0:01		-		-		-	W	46 mph	Y
1	C	65	11/6/2018	12:02 AM		-	12:03 AM	0:01		-		-	W	46 mph	Y
2	D	37	11/6/2018	1:00 PM		-	1:20 PM	0:20		-		-	W	47 mph	Y
1	D	3	11/15/2018	11:01 PM	11:13 PM	0:12		-		-		-	ESE	6 mph	Y
1	D	31	11/15/2018	11:48 PM	12:00 AM	0:12		-		-		-	ESE	6 mph	Y
3	C	14	11/25/2018	7:30 PM		-		-		-	7:40 PM	0:10	NE	30-40 mph	Y
3	C	18	11/25/2018	7:30 PM	7:53 PM	0:23		-		-	8:01 PM	0:31	NE	30-40 mph	Y
3	C	34	11/25/2018	8:30 PM	9:09 PM	0:39		-		-		-	NE	30-40 mph	Y
3	C	46	11/25/2018	9:11 PM	9:15 PM	0:04		-		-		-	NE	30-40 mph	Y
3	D	2	11/25/2018	9:00 PM	9:28 PM	0:28		-		-		-	NE	30-40 mph	Y
3	D	3	11/25/2018	9:00 PM	9:30 PM	0:30		-		-		-	NE	30-40 mph	Y
3	D	14	11/25/2018	9:00 PM	9:33 PM	0:33		-		-		-	NE	30-40 mph	Y
1	C	16	11/26/2018	4:59 AM	5:13 AM	0:14		-		-		-	NE	50 mph	Y
1	C	32	11/26/2018	4:59 AM	5:10 AM	0:11		-		-		-	NE	50 mph	Y
2	B	1	11/26/2018	7:40 AM	7:50 AM	0:10		-		-		-	NW	Gusts up to 50 mph	Y
2	B	3	11/26/2018	7:40 AM	7:50 AM	0:10		-		-		-	NW	Gusts up to 50 mph	Y
2	B	7	11/26/2018	7:40 AM	7:50 AM	0:10		-		-		-	NW	Gusts up to 50 mph	Y
2	B	7	1/6/2019	8:30 AM		-	9:16 AM	0:46		-		-	ENE	15 mph	Y
2	B	3	1/6/2019	8:30 AM		-	9:16 AM	0:46		-		-	ENE	15 mph	Y
2	B	4	1/9/2019	8:02 AM	8:18 AM	0:16		-		-		-	SE	18.3 mph; gusts up to 33 mph	Y
2	B	7	1/9/2019	8:02 AM	8:18 AM	0:16		-		-		-	SE	18.3 mph; gusts up to 33 mph	Y

2	C	36	1/19/2019	8:02 AM	11:00 AM	2:58		-		-		-	NNW	35 mph	Y
2	D	1	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	2	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	3	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	4	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	5	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	11	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
2	D	12	1/19/2019	7:00 AM	11:00 AM	4:00		-		-		-	NW	35 MPH	Y
3	D	1	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	2	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	3	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	4	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	67	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	66	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	65	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
3	D	34	2/15/2019	12:00 AM		-	12:46 AM	0:45		-		-	W	19 mph; gusts up to 28 mph	Y
2	B	4	2/24/2019	8:04 AM	8:09 AM	0:05		-		-		-	W	32 mph; gusts up to 44 mph	Y
2	B	2	2/24/2019	8:04 AM	8:20 AM	0:16		-		-		-	W	32 mph; gusts up to 44 mph	Y
2	B	7	3/3/2019	6:50 AM	7:00 AM	0:10		-		-		-	NW	25 mph	Y
2	B	3	3/3/2019	6:51 AM	6:58 AM	0:07		-		-		-	NW	25 mph	Y
2	B	1	3/3/2019	6:52 AM	6:59 AM	0:07		-		-		-	NW	25 mph	Y
2	D	2	3/25/2019	7:08 AM	7:28 AM	0:20		-		-		-	NNE	21 mph	Y
2	D	3	3/25/2019	7:09 AM	7:30 AM	0:21		-		-		-	NNE	21 mph	Y
2	D	4	3/25/2019	7:10 AM	7:40 AM	0:30		-		-		-	NNE	21 mph	Y
2	D	12	3/25/2019	7:11 AM	7:42 AM	0:31		-		-		-	NNE	21 mph	Y
2	D	16	3/25/2019	7:12 AM	7:46 AM	0:34		-		-		-	NNE	21 mph	Y
2	D	56	3/25/2019	7:15 AM	7:33 AM	0:18		-		-		-	NNE	21 mph	Y
2	D	66	3/25/2019	7:16 AM	7:37 AM	0:21		-		-		-	NNE	21 mph	Y
2	C	33	3/30/2019	6:30 AM		-		-	1:00 PM	6:30		-	NNE	21 mph	Y

2	B	3	3/31/2019	6:55 AM	6:58 AM	0:03				-		-	NW	14	Y
2	B	7	3/31/2019	7:04 AM	7:35 AM	0:31				-		-	NW	14	Y

Attachment H

Daily Bypass Venting Percentages

Date	Daily Venting
10/25/2018	9.82%
10/26/2018	15.00%
10/27/2018	15.79%
10/28/2018	16.18%
10/29/2018	12.17%
10/30/2018	8.91%
10/31/2018	3.68%
11/1/2018	3.68%
11/2/2018	3.70%
11/3/2018	3.68%
11/4/2018	3.68%
11/5/2018	3.68%
11/6/2018	3.68%
11/7/2018	3.68%
11/8/2018	3.68%
11/9/2018	7.22%
11/10/2018	13.36%
11/11/2018	5.15%
11/12/2018	5.88%
11/13/2018	5.88%
11/14/2018	5.88%
11/15/2018	5.88%
11/16/2018	5.88%
11/17/2018	5.88%
11/18/2018	5.88%
11/19/2018	7.61%
11/20/2018	5.88%
11/21/2018	5.88%
11/22/2018	5.88%
11/23/2018	5.88%
11/24/2018	5.88%
11/25/2018	7.35%
11/26/2018	8.26%
11/27/2018	8.82%
11/28/2018	8.82%
11/29/2018	8.82%
11/30/2018	2.57%
12/1/2018	2.57%
12/2/2018	2.57%
12/3/2018	2.61%
12/4/2018	4.33%
12/5/2018	2.57%

12/6/2018	4.51%
12/7/2018	2.58%
12/8/2018	2.57%
12/9/2018	2.76%
12/10/2018	2.57%
12/11/2018	4.78%
12/12/2018	2.57%
12/13/2018	2.57%
12/14/2018	2.57%
12/15/2018	2.57%
12/16/2018	2.57%
12/17/2018	2.57%
12/18/2018	2.57%
12/19/2018	2.57%
12/20/2018	4.76%
12/21/2018	2.57%
12/22/2018	2.57%
12/23/2018	2.57%
12/24/2018	2.57%
12/25/2018	2.57%
12/26/2018	2.57%
12/27/2018	2.57%
12/28/2018	2.57%
12/29/2018	2.57%
12/30/2018	2.57%
12/31/2018	2.57%
1/1/2019	2.57%
1/2/2019	2.57%
1/3/2019	2.57%
1/4/2019	2.57%
1/5/2019	2.57%
1/6/2019	2.77%
1/7/2019	2.57%
1/8/2019	2.57%
1/9/2019	2.77%
1/10/2019	2.57%
1/11/2019	2.57%
1/12/2019	2.57%
1/13/2019	2.57%
1/14/2019	2.57%
1/15/2019	2.57%
1/16/2019	2.57%
1/17/2019	2.57%

1/18/2019	1.84%
1/19/2019	1.47%
1/20/2019	1.10%
1/21/2019	1.15%
1/22/2019	0.74%
1/23/2019	0.00%
1/24/2019	0.16%
1/25/2019	3.82%
1/26/2019	0.41%
1/27/2019	0.23%
1/28/2019	0.02%
1/29/2019	0.36%
1/30/2019	9.77%
1/31/2019	0.74%
2/1/2019	0.25%
2/2/2019	0.00%
2/3/2019	0.12%
2/4/2019	0.00%
2/5/2019	0.00%
2/6/2019	0.00%
2/7/2019	0.00%
2/8/2019	0.00%
2/9/2019	0.00%
2/10/2019	0.00%
2/11/2019	0.00%
2/12/2019	0.04%
2/13/2019	0.00%
2/14/2019	0.00%
2/15/2019	0.00%
2/16/2019	0.02%
2/17/2019	0.06%
2/18/2019	0.01%
2/19/2019	0.00%
2/20/2019	0.09%
2/21/2019	1.03%
2/22/2019	0.00%
2/23/2019	0.01%
2/24/2019	0.23%
2/25/2019	0.00%
2/26/2019	0.04%
2/27/2019	1.96%
2/28/2019	0.00%
3/1/2019	0.27%

3/2/2019	0.15%
3/3/2019	0.12%
3/4/2019	0.44%
3/5/2019	0.00%
3/6/2019	0.53%
3/7/2019	1.08%
3/8/2019	0.52%
3/9/2019	2.81%
3/10/2019	7.07%
3/11/2019	6.52%
3/12/2019	7.57%
3/13/2019	9.09%
3/14/2019	6.76%
3/15/2019	6.25%
3/16/2019	6.25%
3/17/2019	6.36%
3/18/2019	6.25%
3/19/2019	6.25%
3/20/2019	4.30%
3/21/2019	5.20%
3/22/2019	6.25%
3/23/2019	6.25%
3/24/2019	6.25%
3/25/2019	6.25%
3/26/2019	6.63%
3/27/2019	4.60%
3/28/2019	5.14%
3/29/2019	6.25%
3/30/2019	6.25%
3/31/2019	6.25%