

ArcelorMittal Burns Harbor LLC  
Flat Carbon Steel



ArcelorMittal

June 29, 2020 (via electronic submittal)

Cynthia A. King  
U.S. EPA, Region 5, C-14J  
77 West Jackson Boulevard  
Chicago, IL 60604

Attn: Compliance Tracker, AE-17J  
Air Enforcement and Compliance Assurance Branch  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**Subject: ArcelorMittal Burns Harbor LLC  
Consent Decree  
Standard Operating Procedure**

Dear Ms. King:

Enclosed is the ArcelorMittal Burns Harbor LLC Standard Operating Procedure for the No. 1 Coke Oven Battery as required by Section VI, Paragraph 15.e of the Consent Decree entered on April 1, 2020 by the United States District Court for the Northern District of Indiana, Hammond Division, in the matter of *United States of America, et al. v. ArcelorMittal USA LLC, et al.*, Civil Action 2:19-cv-00179. If you have any questions concerning this issue, please contact Rob Maciel at 219-787-4961.

I certify under penalty of law that this document and all attachments were 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 inquiry of the person or persons who manage the system, or those persons 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.

Sincerely,



Jean-Louis Muller  
Vice President/General Manager

Attachment

ArcelorMittal Burns Harbor LLC  
Environmental Mgmt. Dept. T + (219) 787-4961  
250 W. U.S. Highway 12 F + (219) 787-4973  
Burns Harbor, IN 46304















cc: Jeffrey Spector, Department of Justice  
Daniel Schaufelberger, U.S. EPA, Region 5  
Patrick Miller, U.S. EPA, Region 5  
Kelly Earls, Deputy Attorney General, Office of the Indiana Attorney General  
Phil Perry, Compliance and Enforcement Branch, IDEM  
Valerie Tachtiris, Deputy Assistant Commissioner, IDEM  
Rich Zavoda, ArcelorMittal USA LLC  
Lianne Mantione, Squire Patton Boggs  
Therese Vande Hey, ArcelorMittal USA LLC  
(all w/attachment)


**ArcelorMittal Burns Harbor LLC**

Environmental Mgmt. Dept.      T + (219) 787-4961  
250 W. U.S. Highway 12      F + (219) 787-4973  
Burns Harbor, IN 46304

# Coke Plant Standard Procedure Document

## Loss of Blast Furnace Gas

<b>Reminders</b>  Be Aware of All Area Hazards  Additional Persons Required  Eye Protection Required <input type="checkbox"/> Picture/info on right	 Communication Required  Note Any Hazards  Measurement Check or Chart  Related Safety or Other Documents	 <b>PPE Requirements</b> – Fire Retardant Clothing, Long Sleeve Shirt with Sleeves buttoned down and shirt buttoned up, Hardhat, Gloves, Safety Glasses, Safety Shoes, Wristlets, and Respirator  Respirator Required – Facial Hair Policy	 See Purpose, Scope & Responsibilities Table  Environmental Warning  See <b>Tools &amp; Materials</b> table  <b>No Smoking</b>  <b>Emergency- X4911</b>
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Overview	Instructions & Explanations
<div>1 Safety</div> <ol style="list-style-type: none"> <li>1.1  Facial hair policy. <u>(Click here to open file, Go to Step 3)</u></li> <li>1.2 Wear all required safety equipment.           <ol style="list-style-type: none"> <li>1.2a Inspect and replace the equipment as necessary.</li> <li>1.2b Obtain and inspect all required tools.               <ul style="list-style-type: none"> <li>• Replace defective tools as necessary.</li> </ul> </li> </ol> </li> <li>1.3 Respirators are required to be worn on your face in visible emissions.</li> <li>1.4 A CO Meter must be obtained before entering #1 Battery basement.           <ol style="list-style-type: none"> <li>1.4a <u>No one will enter a potential high gas area without a personal CO detector.</u></li> <li>1.4b <u>In addition, no one will enter a potential high gas area without first having notified the area's Supervisor.</u></li> </ol> </li> <li>1.5 Take time to make accurate commands.           <ol style="list-style-type: none"> <li>1.5a Make certain that commands are made within allowable time prior to and after the reversal.</li> </ol> </li> <li>1.6 Watch for slipping and tripping hazards.           <ol style="list-style-type: none"> <li>1.6a Slipping and tripping hazards exist by the Larry Car running rails.               <ul style="list-style-type: none"> <li>• Step over running rails, not on them.</li> </ul> </li> <li>1.6b Be aware of coal piles or “graveyards”.</li> <li>1.6c Walk, never run.</li> <li>1.6d Never walk or stand on charging holes, charging lids and flue caps on the Battery top.</li> <li>1.6e Be aware of open charging holes and flues on the Battery top.</li> <li>1.6f Be prepared for high flue pressures.               <ul style="list-style-type: none"> <li>• Never step on, or near without caution an open flue.</li> </ul> </li> </ol> </li> <li>1.7 Use a steady and controlled pull when pulling flue caps.           <ol style="list-style-type: none"> <li>1.7a When replacing flue caps, ensure the flue cap is properly seated.</li> </ol> </li> <li>1.8 Use only designated walkways when walking on the Battery top.           <ol style="list-style-type: none"> <li>1.8a The area between #2 Lid Lifter and the Larry Car Operators Cab and between #4 Lid Lifter and Coke Side Standpipe are designated walkways on #1 Battery.</li> <li>1.8b The area between #2 Lid Lifter and the Larry Car Operators Cab and between #1 Lid Lifter and Pusher Side Standpipes are designated walkways on #2 Battery.</li> </ol> </li> <li>1.9 Watch for pinch points.           <ol style="list-style-type: none"> <li>1.9a Employee should know times of the reversing mechanism to prevent “caught between” related injuries.               <ul style="list-style-type: none"> <li>• Take note of the reversing lights/bells and stand clear of all reversing</li> </ul> </li> </ol> </li> </ol>	<div> <input type="checkbox"/> 1 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div> <div> <input type="checkbox"/> 2 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div> <div> <input type="checkbox"/> 3 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div> <div> <input type="checkbox"/> 4 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div> <div> <input type="checkbox"/> 5 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div> <div> <input type="checkbox"/> 6 &lt;Step#&gt; BriefDescription &lt;InsertPictureHere&gt;         </div>

# Coke Plant Standard Procedure Document

## Loss of Blast Furnace Gas



- mechanisms.
- 1.9b Never board or leave a moving machine.
- 1.10 Watch for hot sparks and radiant heat from standpipes and ovens with doors removed.
- 1.11 Employee should pace work effort during the summer months to prevent heat related illness.
- 1.11a Employee should replenish bodily fluids.
- 1.12 ENVIRONMENTAL PRECAUTIONS / REGULATED AREA
- 1.13 Possession or consumption of smoking, drinking (except water), food, chewing gum, or tobacco products is not permitted in regulated areas.
- 1.14 Check the environment factor cue card and note any hazards.
- 1.15 Take time to make accurate commands.
- 1.16 Flame retardant clothing required.

### 2 Procedure

**NOTE: #1 BATTERY WILL AUTOMATICALLY NEUTRAL under the following conditions:**

- **Opacity exceeds 30% for 60 seconds**
- **COG flow exceeds 800 KSCFH for 30 seconds.**
- **Stack draft falls to 5mm for 5 seconds**
- **UFP is less than 17mm for 5 seconds**


### 3 Short Term Loss of BFG 72 hours or less

- 3.1 Upon the loss of BFG in the PLC controlled mode, the PLC will automatically lower the setpoint to the controller to a designated value. This value is located on the underfire pressure screen on #1 Battery I-Fix system screen. This value can be changed depending upon production levels but will usually be between 25 mm and 45 mm.
- 3.2 If the PLC does not control the switching of the setpoint when BFG is lost, immediately switch the UFP controller from PLC to manual position.
- 3.3 If a loss of BFG should occur, check the COG flow to the Battery on the Yokogawa Recorder and on the I-Fix system screen “loop summary” for #1 Battery.
- 3.4 With the UFP switch in manual position, match the COG flow recorded on the Yokogawa Recorder.
- 3.4a Set the COG flows by adjusting the Yokogawa under-fire pressure controller (in manual position) to 35 mm of UFP or about 16% valve output position.
- 3.5 After the COG flow stabilizes, monitor the Battery stack draft and north and south oxygen levels.
- 3.5a Adjust stack as needed to maintain about 5% oxygen.
- 3.5b Excess O<sub>2</sub> levels in the absence of BFG will start cooling off the tops of the heating flues and oven chambers.
-  In the event of high opacity refer to SPD: **(Click here to open CO-COH-P2083 - High Opacity Alarm).**
- 3.6  Check top flue pressure to avoid having flues under suction. Refer to SPD: **(Click here to open CO-COH-P2067 - Taking Flue Top Pressure).**
- 3.7 Finger bar adjustments may be necessary to control flame height and flue top pressure.

# Coke Plant Standard Procedure Document

## Loss of Blast Furnace Gas

### 4 Long Term Loss of BFG Greater than 72 hours

- 4.1 In the event that the loss of BFG extends greater than 72 hours, pins will need to be installed into the nozzle portion of the gas piping in an effort to increase under-fire and header pressure.
- 4.1a Loss of BFG for an extended period of time will require the removal of the BFG nozzles and installation of the smaller COG nozzles.
- A decrease in production levels will also result during an extended loss of BFG.
  - Battery temperatures will dictate the level of production.
  -  In the event of high opacity refer to SPD: [\(Click here to open CO-COH-P2083 - High Opacity Alarm\)](#).

### 5 Corrective Actions

- 5.1 Never by-pass heating safety circuits.

### → Purpose, Scope & Responsibilities

**Purpose:** For continued health and safety of Coke Oven Employees and to prevent damage to the facility while still producing coke that will comply with the blast furnace incoming product standards and for continuous environmental improvement and pollution prevention.

**Scope:** Remove deposits of pitch and carbonaceous materials from the collecting main to maintain a clean pathway for foul gas recovery.

**Used By:** Senior Operating Technician and Operating Technician

### ✂ Tools & Materials

☐ Carbon Monoxide Meter



☐ Item Description

☐ Item Description

# Coke Plant Standard Procedure Document

## Loss of Blast Furnace Gas

<p>____ Training Form</p> <p>____ Observation and Reinstruction Form</p> <p>____ E.S.P. Position Observation Form</p>	<p>Employee Name: _____</p> <p>ID#: _____</p> <p>Employee Signature: _____</p> <p>Managers Signature: _____</p> <p>Date: _____</p>
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<p><b>Cross References:</b> </p> <p>This practice is referenced in SPD: <b>Dept-Unit-X0000</b></p> <p>Any changes to this SPD or the above SPD should be reviewed to insure continuity of the practices.</p> <p><b>CONTROL PLAN must be reviewed if this SPD is revised.</b></p>	<p><b>Related Safety or Other Documents</b> </p> <p>♦ Facial Hair Policy</p>
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Rev. No.-Date-Author	Summary of Revisions
1 – 08/08/2014 – E. Battle	Added Statement to end of 4.1a.
2 – 06/24/2020 – B. Creager	updated new values in section 2. Added new information on PLC to 3.1 and wording to 3.2






















<p>Revision: 2</p>	<p>Effective: <b>2020-06-24</b></p> <p>Review by: <b>2023-06-24</b></p>	<p>Approvals:</p> <p><b>Area Manager:</b> Michael A. Zmuda</p> <p><b>Technical Review:</b> Barry Creager</p> <p><b>Author/reviewer:</b> Barry Creager</p>
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# COKE PLANT STANDARD PROCEDURE

## High Opacity Alarm

<b>Reminders</b>  Watch for Slipping Hazards  Watch for Tripping Hazards  Watch for Pinch Points  Be Aware of Moving Machinery  Be Aware of Hot Areas / Surfaces	 Lifting / Carrying Hazard  Be Aware of All Area Hazards  Be Aware of Sparks  Communication Required  Related Safety or Other Documents	 PPE Requirements – Arc Flash Clothing, Long Sleeve Shirt with sleeves buttoned down and shirt buttoned up, Hardhat, Gloves, Safety Glasses, Safety Shoes, and Respirator  Respirator Required – Facial Hair Policy  Note any hazards  Hand Protection Required	 See Purpose, Scope & Responsibilities Table  Environmental Warning  See <b>Tools &amp; Materials</b> table  <input type="checkbox"/> Picture/info on right  <b>No Smoking</b>  <b>Emergency- X4911</b>  Eye Protection Required
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# COKE PLANT STANDARD PROCEDURE

## High Opacity Alarm

- 1.12a Employee should know times of the reversing mechanism to prevent “caught between” related injuries.
  - Take note of the reversing lights/bells and stand clear of all reversing mechanisms.
- 1.13 Never board or leave a moving machine.
- 1.14 Watch for hot sparks and radiant heat from standpipes and ovens with doors removed.
- 1.15 Employee should pace work effort during the summer months to prevent heat related illness.
  - 1.15a Employee should replenish bodily fluids.
- 1.16 ENVIRONMENTAL PRECAUTIONS / REGULATED AREA
- 1.17 Possession or consumption of smoking, drinking (except water), food, chewing gum, or tobacco products is not permitted in regulated areas.
- 1.18 Flame retardant clothing required.
- 1.19 Take time to make accurate commands.

### 2 Procedure

**NOTE: IF THE OPACITY ON #1 BATTERY EXCEEDS 30% FOR 60 SECONDS THE BATTERY WILL AUTOMATICALLY NEUTRAL.**


- 2.1 If a high opacity alarm should occur, check the GAS FLOW(s) to the Battery at the location displayed on the “Yokogawa” recorder and then on the I-Fix system screen “Gas Loop Sum” for #1 Battery and the “UFG Pressure” for #2 Battery.
- 2.2 If the GAS FLOW(s) is substantially higher than normal, switch to the Foxboro UFG Pressure controller and ramp the output of the controller, “down” to a level that provides relief to the stack opacity and normalizes GAS FLOW(s).

**NOTE: THE COG FLOW SAFETY CIRCUIT WILL AUTOMATICALLY NEUTRAL THE BATTERY IF THE COG FLOW EXCEEDS 800 KSCFH FOR A PERIOD OF 30 SECONDS ON #1 BATTERY ONLY.**

- 2.3 If the GAS FLOW(s) appears to be normal then display the I-Fix system screen “North Stack” then display the “Stack Summary”.
- 2.4 If the center column of the stack draft controller(s) displays a value substantially lower than the left column, NEUTRAL or EMERGENCY OFF the Battery.

**NOTE: THE STACK DRAFT SAFETY CIRCUIT WILL AUTOMATICALLY NEUTRAL THE BATTERY IF THE STACK DRAFT PRESSURE IS LESS THAN 5MM ON #1 BATTERY AND 10MM ON #2 BATTERY.**

- 2.4a NEUTRAL for #1 Battery.
- 2.4b EMERGENCY OFF for #2 Battery.

-  If the stack draft controllers appear to be working properly but needs to be reset, refer to SPD for “Setting the Stack Drafts”.
  - Follow the current SPD - ([Click here to open CO-COH-P2081](#)).
- 2.5 If the GAS FLOW(s) and oxygen levels appear to be normal, then display the I-Fix system screen “Battery Opacity”.
- 2.6 If “CALIBRATION” is displayed above the opacity bar chart on the Battery Opacity screen, walk to the pusher side bench level and observe the stack for any visible emissions.
  - 2.6a If visible emission is observed or “Calibration” is **NOT** displayed on the Battery Opacity screen of the I-Fix system, immediately call the Pusher for the last oven charged or being charged.
- 2.7 Proceed to the Battery basement and shut OFF the emergency cocks to the heating walls of the previous ovens charged or being charged.
  - 2.7a Pull the finger bars on the air boxes feeding air to the heating walls of the particular oven charged or being charged.



# COKE PLANT STANDARD PROCEDURE

## High Opacity Alarm

- A CO Meter must be obtained before entering #1 Battery basement.
  - ☐ No one will enter a potential high gas area without a personal CO detector. In addition, no one will enter a potential high gas area without first having notified the area's Supervisor.
- 2.8 Proceed to the Battery top for inspection of the flues.
- 2.8a Inspect the flues on the heating walls of the particular ovens in question for oven to flue leakage.
- If no oven to flue leakage is found, then proceed to alleyways to check air box lids and waste heat mushrooms, reversing cocks and the reversing chain system.
  - If oven to flue leakage is found, then report the wall, flue number, location in the flue, and severity of the leakage to Heating Supervision.
- ☐ Once done inspecting the flues, replace flue caps and notify Heating Supervision of any corrective action that was taken.

### 3 Corrective Action

- 3.1 The preceding operating procedure is a correction action to a high opacity alarm.
- 3.2 Heating Supervision will line up the necessary refractory repairs that may be needed to alleviate any future oven to flue foul gas leakage.
- 3.3 After evaluating each situation, Heating Supervision will implement a procedure revision to any high opacity stemming from human error or machine logic.

### → Purpose, Scope & Responsibilities

**Purpose:** For continued health and safety of Coke Oven Employees and to prevent damage to the facility while still producing coke that will comply with the blast furnace incoming product standards and for continuous environmental improvement and pollution prevention.

**Scope:** To reduce the level of emissions from the under firing stack to comply with environmental standards.

**Responsible/Used By:** Senior Operating Technician and Operating Technician

### ✂ Tools & Materials

☐ Carbon Monoxide Meter

☐

☐

☐

☐

### Cross References:

This practice is referenced in SOP: **Dept-Unit-0000**

Any changes to this SOP or the above SOP should be reviewed to insure continuity of the practices

**CONTROL PLAN must be reviewed if this SOP is revised**

### Related Safety or Other Documents

♦ Facial Hair Policy

♦ SPD CO-COH-P2081 "Setting the Stack Drafts"

# COKE PLANT STANDARD PROCEDURE

## High Opacity Alarm

<p>____ Training Form</p> <p>____ Observation and Reinstruction Form</p> <p>____ E.S.P. Position Observation Form</p>	<p><b>Employee Name:</b> _____</p> <p><b>ID#:</b> _____</p> <p><b>Employee Signature:</b> _____</p> <p><b>Managers Signature:</b> _____</p> <p><b>Date:</b> _____</p>
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Rev. No.-Date-Author	Summary of Revisions
1 - 12/15/2011 – Szprychel	Added notes to Procedure 2.2 and 2.4
2 – 03/01/2012 – Medved	Removed Hazard Assessment & Control Checklist requirement. Revised wording to 1.3a, 1.3b and 2.7a
3 – 06/02/2017 - Yost	Revised wording to 2.8
4 – 06/24/2020 – B. Creager	Revised first note in procedure 2 for new values, Revised note in 2.2 for current values






















Revision: 4	Effective: <b>2020-06-24</b> Review by: <b>2023-06-24</b>	Approvals: <b>Area Manager:</b> Michael A. Zmuda <b>Technical Review:</b> Barry Creager <b>Author/reviewer:</b> Randy Radford
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# Coke Plant Standard Procedure Document

## Taking Flue Top Pressure Readings

<b>Reminders</b>		Communication Required		<b>PPE Requirements – Fire</b>		See Purpose, Scope & Responsibilities Table
 Be Aware of All Area Hazards		Note Any Hazards		Retardant Clothing, Long Sleeve Shirt with Sleeves buttoned down and shirt buttoned up, Hardhat, Gloves, Safety Glasses, Safety Shoes, Wristlets, and Respirator		Environmental Warning
		Measurement Check or Chart		Respirator Required – Facial Hair Policy		See <b>Tools &amp; Materials</b> table
		Related Safety or Other Documents		Eye Protection Required		Picture/info on right
		Beware of Moving Machinery		Additional persons required		<b>Emergency- X4911</b>
						<b>No Smoking</b>
Hand Protection Required						

Overview    Instructions & Explanations	
<div>1    Safety</div> <div><div><div>1.1</div><div> Facial hair policy. <u>(Click here to open file, Go to Step 3)</u></div></div><div><div>1.2</div><div>Wear all required safety equipment.</div><div><div>1.2a</div><div>Inspect and replace the equipment as necessary.</div></div><div><div>1.2b</div><div>Obtain and inspect all required tools.</div><div><div>•</div><div>Replace defective tools as necessary.</div></div></div><div><div>1.3</div><div>Respirators are required to be worn on your face in visible emissions.</div></div><div><div>1.4</div><div>Watch for slipping hazards and tripping hazards.</div><div><div>1.4a</div><div>Slipping and tripping hazards exist by the Larry Car running rails.</div><div><div>•</div><div>Step over the running rails, not on them.</div></div><div><div>1.4b</div><div>Walk, never run.</div></div><div><div>1.4c</div><div>Be aware of coal piles or “graveyards”.</div></div></div><div><div>1.5</div><div>Watch for pinch points.</div></div><div><div>1.6</div><div>Watch for moving machinery at all times.</div><div><div>1.6a</div><div>Check clearances before moving abruptly.</div></div><div><div>1.6b</div><div>Never board or leave a moving machine.</div></div><div><div>1.6c</div><div>Maintain clearance.</div></div></div><div><div>1.7</div><div>Use only designated walkways on the battery top.</div></div><div><div>1.8</div><div>Wear adequate clothing to protect against the heat.</div><div><div>1.8a</div><div>Employees should wear wristlets, long cuffed gloves and long sleeved cotton shirt with the collar buttoned up.</div><div><div>•</div><div>Coke Oven issued safety shoes are required.</div></div></div><div><div>1.9</div><div>Watch where walking.</div><div><div>1.9a</div><div>Never walk or stand on charging hole lids.</div><div><div>•</div><div>Lids may flip or turn allowing fire to erupt from the oven.</div></div><div><div>1.9b</div><div>Be aware of open charging holes, charging lids and flue caps on the battery top.</div></div><div><div>1.9c</div><div>Be aware of open flue holes.</div><div><div>•</div><div>Be prepared for high flue pressures.</div><div><div>•</div><div>Never step on or near without caution, an open flue.</div></div></div><div><div>1.9d</div><div>When pulling flue caps, use a steady controlled pull.</div></div><div><div>1.9e</div><div>When replacing flue caps, ensure the flue cap is properly seated.</div></div></div><div><div>1.10</div><div>Watch for hot sparks and radiant heat from standpipes and ovens with doors removed.</div></div><div><div>1.11</div><div>ENVIRONMENTAL PRECAUTIONS / REGULATED AREA</div></div></div></div><div><div><div><div>□1</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div><div><div>□2</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div><div><div>□3</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div><div><div>□4</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div><div><div>□5</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div><div><div>□6</div><div>&lt;Step#&gt;</div><div>BriefDescription</div><div>&lt;InsertPictureHere&gt;</div></div></div></div></div></div></div></div>	

# Coke Plant Standard Procedure Document

## Taking Flue Top Pressure Readings

- 1.12 Possession or consumption of smoking, drinking (except water), food, chewing gum, or tobacco products is not permitted in regulated areas.
- 1.13 Take time to make accurate commands.
- 1.14 Flame retardant clothing required.
- 1.15 Employee should pace work effort during the summer months to prevent heat related illness.
- 1.15a Employee should replenish bodily fluids.

### 2 Procedure

- 2.1 Take flue top pressures as specified by the Heating Supervisor.
  - 2.1a Flue top pressures should be taken on flues during the off burn.
- 2.2 Use a magnahelic gauge (+/- 0 to 30) to measure pressure.
  - 2.2a Take a run of flue pressures when gas is off, use the same number flue when taking pressure from one end of the battery to the other and record the pressures on a worksheet and turn in to Heating Supervisor.
- 2.3 A set of flue top pressures should be taken starting 5 minutes after a reversal of the "off" reverse.
  - 2.3a #1 Battery pressures should range from 3 to 5mm.
  - 2.3b #2 Battery pressures should range from 1 to 2mm.

### 3 Corrective Actions

- 3.1 Making flue top pressure adjustments.
- 3.2 Flue top pressures have multiple adjustments, removing a finger bar will raise the top pressure and adding a finger bar will lower the top pressure.
- 3.3 Raising the stack draft will lower the top pressure, and lowering the stack draft will raise the top pressure.
- 3.4 To stretch the flame you would add a finger bar, this will help get rid of cool tops.
- 3.5 When making adjustments you must inspect the burn to be sure there is good combustion when you complete all adjustments.

### → Purpose, Scope & Responsibilities

**Purpose:** To measure flue top pressures.

**Scope:** To maintain consistent flue pressures after making finger bar or BTU adjustments in relation to coking time and continuous environmental and quality issues.

**Responsible/Used By:** Senior Operating Technician and Operating Technician

### ✂ Tools & Materials

☐ **Magnahelic +/- 30mm**

☐ **Flue cap removing tool**

### Cross References:

This practice is referenced in SPD: **Dept-Unit-X0000**

Any changes to this SPD or the above SPD should be reviewed to insure continuity of the practices.

**CONTROL PLAN must be reviewed if this SPD is revised.**

### Related Safety or Other Documents

♦ **Facial Hair Policy**

# Coke Plant Standard Procedure Document

## Taking Flue Top Pressure Readings

<p>____ Training Form</p> <p>____ Observation and Reinstruction Form</p> <p>____ E.S.P. Position Observation Form</p>	<p>Employee Name: _____</p> <p>ID#: _____</p> <p>Employee Signature: _____</p> <p>Managers Signature: _____</p> <p>Date: _____</p>
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Rev. No.-Date-Author	Summary of Revisions
1 – 03/01/2012 – Medved	Removed Hazard Assessment & Control Checklist requirement.

Revision: <b>1</b>	Effective: <b>2019-09-25</b> Review by: <b>2022-09-25</b>	Approvals: <b>Area Manager: Michael A. Zmuda</b> <b>Technical Review: Barry Creager</b> <b>Author/reviewer: Randy Radford</b>
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