DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

A864036149

FACILITY: AK STEEL - DEARBORN WORKS		SRN / ID: A8640
LOCATION: 4001 MILLER ROAD, DEARBORN		DISTRICT: Detroit
CITY: DEARBORN		COUNTY: WAYNE
CONTACT: James E. Earl , Environmental Manager		ACTIVITY DATE: 06/29/2016
STAFF: Katherine Koster	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MEGASITE
SUBJECT: FY2016 Targeted Inspection - BOF		
RESOLVED COMPLAINTS:		

Reason for Inspection: Targeted Inspection
Level of Inspection: PCE
Inspected by: Katie Koster, AQD
Personnel Present: Jim Earl, Environmental Manager; Dave Pate, Environmental Engineer
Facility phone number: 313-845-3217
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FACILITY BACKGROUND

AK Steel – Dearborn Works (formerly Severstal Dearborn, LLC) is an integrated iron and steel mill which primarily produces flat rolled coils. The facility is operating at 4001 Miller Road, Dearborn. The previous address, 3001 Miller Road, has been assigned to the Ford Motor Company Rouge Plant which is adjacent to the mill. The company was previously operating under the name Severstal Dearborn, LLC until it became AK Steel Dearborn Works in October 2014. Before being purchased by Severstal in 2004, the company was operating as Rouge Steel.

PROCESS DESCRIPTION
Below includes the processes discussed and/or observed during the inspection. This does not include the entire facility.

The basic process in the Basic Oxygen Process (BOP) shop is as follows:

1. **Molten iron/Hot Metal is received in torpedo cars from the C blast furnace. Hot metal is transferred (poured) from the torpedo car into a charging ladle at the hot metal transfer station. Charging ladles can be distinguished from tapping ladles by the pouring lip on them as well as the fact that they do not drain from the bottom. A moveable hood slides into place before pouring begins to collect and route emissions to the secondary baghouse (reverse air type).**
2. **Once full, the charging ladle is moved by crane to the desulfurization station. A lance is lowered into position and powdered desulfurization agents (magnesium and lime) are blown through the lance using an inert carrier gas (such as nitrogen) and injected by fluid momentum into the hot metal bath. Materials are injected in amounts calculated to meet the desired sulfur content specification. This process liberates kish (carbon graphite). Kish is skimmed from the top of the ladle after desulfurizing is complete. Desulfurizing and slag skimming are controlled by a moveable hood and the desulfurization baghouse (shaker type).**
3. **Next, scrap is charged to one of two Basic Oxygen Vessels (A and B) and then the hot metal is poured into the furnace. The mixture in the vessel is about 70% scrap and 30% iron. One heat lasts about 40 minutes and produces approximately 250 tons of steel. Charging is primarily controlled by the secondary baghouse. There is also a charging hood.**
4. **Lime flux is added and oxygen blowing commences immediately thereafter. Oxygen blowing liberates carbon and creates the exothermic reaction needed to melt the scrap. Blowing takes approximately 18-22 minutes. Emissions are collected by the primary hood and controlled by the ESP.**
5. **After blowing, the furnace is tilted and tapped into a tapping ladle. Alloys are added during tapping and then aluminum and other materials, such as ferromanganese, are added to "kill" the reaction. Tapping is controlled by the secondary baghouse and there is a tapping hood.**
6. **Once the operator observes slag, the vessel is tilted the opposite direction and turned**

upside down into a slag pot. This is controlled by the secondary baghouse.
7. The steel ladle is sent to the Ladle Metallurgy Facility for further processing.

In general, 1.25 times the daily iron tonnage equals the daily steel output.

INSPECTION NARRATIVE

On 6/29/16, I arrived at the AK Steel environmental offices around 9:30 a.m. and met with Mr. Jim Earl, Environmental Manager, and Mr. Dave Pate, Environmental Engineer. We proceeded to the plant. I observed the BOF shop roof monitor, secondary baghouse stack, and desulfurization baghouse stack while driving to and from the BOF parking lot and entering the building. I did not observe any visible emissions from the baghouse exhaust stacks or the roof monitor.

Ms. Bianca Lewis was in the BOF control roof. Mr. Randy Parker, BOF manager, was out for the day. Jim, Dave, and I walked through the process. At 10:50 a.m., we viewed the Hot Metal Transfer/Reladle station at the north end of the BOF building. Torpedo car 106 was being emptied. The moveable hood was in place, and I did not observe any fugitive emissions escaping the hood. When the ladle is half full, the hood is moved so that a sample of the hot metal can be collected to determine temperature and carbon content. It takes about 1.5 torpedo cars to fill one ladle.

We proceeded to the desulfurization process where sulfur is removed from the hot metal by injecting magnesium and lime via a nitrogen lance. This process liberates kish (carbon graphite). At the end of the desulfurizing process, the ladle is skimmed at the slag skimming station. This process is performed by contractors. The desulfurization process (desulfurizing and slag skimming) is controlled by a single moveable hood ducted to a shaker type baghouse.

I recorded the following from the operations screen (values in () are values from prior inspection):
Heat # - 29206
Sulfur aim – 0.01
Fan amps – 92 (91) (97)
Pressure drop – 5.7 (4.9) (7.3) in. w.c.
Inlet T – 131.3 F (119.1F) (136.6 F)

At this time, the desulfurization operators were processing heats with high titanium. A pre-skim is required in those instances because titanium prohibits the lime and magnesium from penetrating the bath properly. Also, when a heat with high titanium is received, they shoot for lower end sulfur content than normal. Lime helps magnesium flow so it doesn't burn up before it exits the lance. Once magnesium hits the iron bath, it burns which brings the sulfur to the surface of the hot metal.

At 10:45 a.m., I walked outside of the pulpit to observe the capture of the desulfurization hood. There were some intermittent fugitive visible emissions at the front of the hood (charging aisle), about 10-15% opacity during desulfurizing and slag skimming. The fugitive emissions did not appear to be reaching the roof monitor in any visible amounts

We proceeded to BOF vessel pulpits. Tapping of B vessel occurred at 9:39 a.m. and A vessel was being charged. We observed the operations inside the pulpit on the cameras. Damper positions are changed manually by the operators before they take action to change a vessel position/status.

-COMS readout was as follows: Inst – 2%, 1 min – 2%, 6 min – 2%, 1 hr – 2.8%
-Fan speeds on all 4 fans at secondary BH were 87%
-Scenario 132 was visible on screen; scenarios are outlined in the MACT O&M plan. Online A, Tapping B
- June 15 last outage at the BOF
-A vessel switched to charging, Scenario 112; fan speed 4; damper positions S-100, N-100, Main - 35, Tap -0
-Precip. Draft – 2.8 in w.c. (this is the target set point)
-Desulf baghouse – 0.29 in w.c.

-Heat 18204
-O2 – 4.2%, blow rate 21,635scfm

Both boiler hoods over vessel A and B are scheduled to be replaced. Boilers provide plant steam. At the ESP, all A wires have been replaced due to moisture. Tapping on A occurred at 10:12 a.m. Dew point monitor for the ESP did not really work.

We discussed the process of how the company determines an opacity exceedance is steam versus particulate. Primarily they rely on the camera data. I inquired about the ability to see the plume color at night and they responded that due to exterior lighting it is actually still possible to see whether there is reddish particulate in the steam plume. Also power levels and dust density probes in each compartment are reviewed.

There is no continuous monitoring of the steam ring operational status.

The CPMS (continuous parametric monitoring system) takes an instantaneous reading every 15 minutes. If that reading is below the set point for damper and fan speeds, a deviation is reported. It is a snapshot in time as opposed to an average. Set points are outlined in the plans required by the Iron and Steel MACT.

RULES/PERMIT CONDITIONS EVALUATED
Conditions are from PTI 182-05C

The following conditions apply to:EURELADLINGBOF
DESCRIPTION: Reladling South & North – BOF
Flexible Group ID: FGBOFSHOP
POLLUTION CONTROL EQUIPMENT: BOF secondary emissions baghouse

I. EMISSION LIMITS
1&2 - 20% 3 minute average EURELADLINGBOF Fugitive emissions from hot metal transfer operation building or enclosure. IN COMPLIANCE. At the time of the inspection, I did not observe any fugitive emissions exiting the building from the reladling process.

3. PM – 6.3 tpy 12-month rolling time period as determined at the end of each calendar month from roof monitor. IN COMPLIANCE. Based on the 2015 MAERS report, 12 month rolling emissions at the end of December 2015 were 3.62 tons per year.

4. PM-10 - 3.6 tpy 12-month rolling time period as determined at the end of each calendar month from roof monitor. IN COMPLIANCE. Based on the 2015 MAERS report, 12 month rolling emissions at the end of December 2015 were 1.71tons per year and 2.07 tpy from Appendix 1.7. Both are below the limit. However, this needs further investigation as to the discrepancy. AQD will follow up with the facility.

5. PM2.5 - 1.84 tpy 12-month rolling time period as determined at the end of each calendar month from roof monitor. IN COMPLIANCE. 1.05 tpy for end of December 2015 in Appendix 1.7 spreadsheet; there is no MAERS data.

II. MATERIAL LIMITS NA
III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EURELADLINGBOF and the BOF secondary baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. IN COMPLIANCE. Based on visual observation and inspection records, the baghouse appears to be operating properly.

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the EURELADLINGBOF and the BOF secondary baghouse emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. IN COMPLIANCE. The SSM plan was submitted on 8/12/16 and is in the facility file.

3. The permittee shall not operate EURELADLINGBOF unless the emissions are directed to the

BOF secondary baghouse and the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner. IN COMPLIANCE. At the time of the inspection, the reladling process was directed to the baghouse and the baghouse appeared to be working properly.

4. NOT APPLICABLE. The North hole has not been used. This condition pertains to requirements in effect if the North Hole of the BOF shop is used.

5. NOT APPLICABLE. This condition is related to the prior one. Rerouting of the reladle north has not been done; this station is not in use. Upon routing the Reladling North Operations exhaust to the BOF secondary baghouse, the permittee may utilize the Reladling North Operations in compliance with the applicable requirements of EURELADLINGBOF, and with the emission, monitoring, testing, and recordkeeping requirements of FGBOFSHOP.

IV. DESIGN/EQUIPMENT PARAMETERS NA

V. TESTING/SAMPLING

1. Permittee shall conduct performance tests for opacity and PM no less frequently than once during the ROP renewal period. IN COMPLIANCE. Test conducted in 2013. The next test is scheduled for September 2016.

2. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate of the BOF secondary baghouse. Performance testing for particulate is contained in the FGBOFSHOP section. IN COMPLIANCE. See stack test results from 2013.

3. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following:
   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9.
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.

   IN COMPLIANCE. See stack results from 2013.

VI. MONITORING/RECORDKEEPING

2,3 and 4.The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). DID NOT EVALAUTE. Did not evaluate whether the company is maintaining all of this information.

5. The permittee shall keep monthly records of the amount of iron throughput to the Reladling South and North Operations, separately. The permittee shall keep the records on file at the facility and make them available to the department upon request. IN COMPLIANCE. Monthly records of iron throughput for reladle south were presented and reviewed as part of the inspection. Reladle north is not in use.

6. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, and PM2.5 emission rates from the EURELADLINGBOF roof monitors. The permittee shall keep the records on file at the facility and make them available to the department upon request. IN COMPLIANCE. Emission calculations appear to be performed using Appendix 1.7. Calculations are attached.

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. DID NOT EVALUATE. Did not evaluate whether every notification has been submitted at least 60 days

in advance. Regardless of the lead time, notifications to test have been submitted.

2. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). NOT APPLICABLE. No actions inconsistent with the SSM plan have been reported.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted: Stack SVBOFBH 222 inches max diameter, min height above ground 200 ft. IN COMPLIANCE. According to the 2015 MAERS report and the permit to install application for 182-05C, the stack is 200 ft. above ground and inside diameter is 222 inches.

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. IN COMPLIANCE. Based on conditions from the MACT that were evaluated above

2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. DID NOT EVALUATE. Did not request 5 years of records at this time.

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. NOT APPLICABLE. Initial compliance date has passed; it was 10 years ago.

The following conditions apply to: EUBOFDESULF
DESCRIPTION: Desulfurization operation using lime and magnesium to remove sulfur and skimming of slag into a slag pot, all controlled by a movable hood to a baghouse.
Flexible Group ID: NA
POLLUTION CONTROL EQUIPMENT: Baghouse

I. EMISSION LIMITS

1. VE 20% 3 minute average EUBOFDESULF Baghouse stack. IN COMPLIANCE. During the inspection, I did not observe any visible emissions from the baghouse stack.

2. VE 20% 3 minute average EUBOFDESULF BOF Shop Building. IN COMPLIANCE. During the inspection, I did not observe any visible emissions from the BOF shop building.

3. VE 20% 3-minute average EUBOFDESULF BOF Shop Building. IN COMPLIANCE. During the inspection, I did not observe any visible emissions from the BOF shop building.

4. PM 0.01 gr/dscf EUBOFDESULF Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, PM emissions are .00073 pph

5. PM 7.7 pph EUBOFDESULF Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack testing, PM emissions are 0.46 pph.

6. PM 126.72 tpy 12-month rolling time period as determined at the end of each calendar month EUBOFDESULF Roof monitor. IN COMPLIANCE. Based on the 2015 MAERS, 12 month rolling roof monitor emissions at the end of December 2015 were 72.62 tons.

7. PM 10 3.6 pph EUBOFDESULF Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, PM10 emissions are 0.67 pph.

8. PM 10 24.38 12-month rolling time period as determined at the end of each calendar month EUBOFDESULF Roof monitor. IN COMPLINACE.13 tpy on a 12 month rolling average is the highest emissions from December 2014 through June 2016.

9. PM 2.5 3.6 pph EUBOFDESULF Baghouse stack. IN COMPLIANCE. PM 2.5 is assumed to equal PM-10 based on the identical limits. See above.

10. PM 2.5 14.25 tpy 12-month rolling time period as determined at the end of each calendar month for EUBOFDESULF Roof monitor emissions. IN COMPLIANCE. 9.13 tpy on a 12 month rolling average is the highest emissions from December 2014 through June 2016.

11. Pb 0.0016 pph EUBOFDESULF Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, Pb emissions were 0.00015 pph

12. Mn 0.013 pph EUBOFDESULF Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, Mn emissions were 0.00045 pph

II. MATERIAL LIMITS NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. EUBOFDESULF and the associated baghouse shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. UNABLE TO DETERMINE. Facility has self-reported that slag skimming has been performed uncontrolled at the main desulfurization station when the tilting mechanism for the ladle has broken. At this time, AQD does not have enough information to determine whether "emissions were minimized at least to the levels required" in the subpart as it is unknown whether these instances were in compliance with the MACT roof monitor opacity limits. Also, as emissions were uncontrolled, it does not appear that they would have been "minimized to the levels required by the subpart."

2. The permittee shall develop and implement a written startup, shutdown and malfunction plan for EUBOFDESULF and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. IN COMPLIANCE. The most recent version of the SSM plan was submitted on 8/12/16 and is in the facility file.

3. The permittee shall not operate EUBOFDESULF unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. NOT IN COMPLIANCE. Facility self-reported that historically there have been times when the slag skimming at the desulfurization station was conducted without the use of the baghouse because the tilting mechanism was broken. The permit requires slag skimming to be performed with the baghouse in operation.

IV. DESIGN/EQUIPMENT PARAMETERS NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. Permittee shall conduct performance tests for particulate matter emissions and opacity at least once every 5 years. IN COMPLIANCE. Most recent test was conducted in April 2013. The next test is scheduled for October 2016.

2. Sampling during the performance tests will occur only when the operations being controlled are in operation. IN COMPLIANCE. During the April 2013 test, sampling was conducted only when the desulfurization operation was in use (including slag skimming). This is documented in the stack test report.

3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. IN COMPLIANCE. Visible emissions observations were conducted during the PM test during the April 2013 testing. No

exceedances were observed.

4. The permittee shall demonstrate compliance with the opacity limitation in SC I.3 with a certified observer according to Method 9 except for the following:
   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9.
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.

   IN COMPLIANCE. Visible emissions observations were conducted during the April 2013 testing. No exceedances were observed. Results are included as part of the test report.

5. Within three years of the issuance of this permit, the permittee shall verify the PM, PM10, PM2.5, Pb, and Mn emission rates from EUBOFDESULF baghouse stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb and Mn dust concentrations in the EUBOFDESULF baghouse hoppers. Subsequent Pb and Mn sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.

   NOT YET APPLICABLE. Facility has until May 2017 to complete testing per the three year window.

VI. MONITORING/RECORDKEEPING

2. The permittee shall perform a Method 9 certified visible emission observation for the EUBOFDESULF baghouse stack at least once every month during EUBOFDESULF processing activity for a minimum of one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. IN COMPLIANCE. Visible emission observations have been made once per month. No corrective actions have been needed.

3. The permittee shall conduct inspections of the Desulfurization Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. IN COMPLIANCE. Inspection records for July 2015 through June 2016 were supplied and are attached.

   a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual. Daily readings for 2016 are attached.
   b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms. Weekly visual inspections are performed and documented. An example record is attached.
   c. Check the compressed air supply for pulse-jet baghouses each day. Compressed air pressure monitoring is not required because the baghouse is not pulse jet.
   d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology. Cleaning cycles are continuously monitored and trended.
   e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means. Checks are in the monthly inspection records.
   f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices. Checks are in the monthly inspection records.
   g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks. Physical integrity inspection occurs monthly as

demonstrated through the records.

h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. The fans are inspected by an outside contractor quarterly. Records are attached.

4. Except as allowed in SC VI.6, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control:
   a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot).
   b. Provides output of relative changes in particulate matter loadings.
   c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level.
   d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time.

   IN COMPLIANCE. Bag leak detector is installed and being maintained. Facility hired an outside contractor to check the system periodically. Most recent check was performed in December 2015 and the alarm was tested. Records were provided and are attached.

5. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.6. IN COMPLIANCE. Company has certified that no changes have been made.

6. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831 (h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. NOT APPLICABLE. A bag leak detection system is in place.

7. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). IN COMPLIANCE. The process is being monitored as required.

8. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. IN COMPLIANCE. Inappropriate data is not in use.

9. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. NOT APPLICABLE. See attached letter. No alarms have been triggered over the last year.

10. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to
    40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.6. NOT APPLICABLE.

11. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). DID NOT EVALUATE. Did not evaluate whether company has all of this information.

12. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). DID NOT EVALUATE. An SSM presentation has not been needed.

13. The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). IN COMPLIANCE. Based on supporting information provided in the MAERS report, it appears facility is maintaining this information.

14. The permittee shall keep monthly records of the amount of iron throughput to EUBOFDESULF. The permittee shall keep the records on file at the facility and make them available to the department upon request. IN COMPLIANCE. Iron throughput records at the desulfurization station are maintained on a monthly basis and were presented and reviewed as part of the inspection. Time period reviewed was January 2014 – June 2016.

The following conditions apply to: FGBOFSHOP
DESCRIPTION: Two Basic Oxygen Furnace vessels and BOF Reladling south and north
Emission Units: EUBOF, EURELADLINGBOF
POLLUTION CONTROL EQUIPMENT: One Electrostatic Precipitator for both BOF Vessels, Secondary Baghouse for process emissions from the two Basic Oxygen Furnace vessels and BOF Reladling south and north.
I. EMISSION LIMITS
1. Visible emissions 20% Opacity 3-minute average FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. No exceedances have been observed from the secondary baghouse stack from the certified VE reader. I did not observe any VE's from the stack while on site.

2. Visible emissions 15% Opacity 3-minute average FGBOFSHOP Roof Monitor. IN COMPLIANCE. Since January 2015, approximately 15 exceedances have been observed. All have been accompanied by an investigative report and corrective actions, when applicable. It does not appear that same root cause is continuing without being addressed. Also, facility takes 6 hours of readings of the roof monitor a week which includes 12 complete heats per week; 72 per quarter. As such, facility is substantively in compliance with this condition at this time.

3. PM 0.003 gr/dscf FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the December 2014 stack test, PM emissions were 0.00031 gr/dscf.

4. PM 0.01 gr/dscf FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the December 2014 stack test, PM emissions were 0.00031 gr/dscf.

5. PM 15.6 pph FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, PM emissions were 2.27 pph.

6. PM10 17.71 pph FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, PM10/2.5 emissions were 5.02 pph.

7. PM2.5 17.71 pph FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, PM10/2.5 emissions were 5.02 pph.

8. NOx 10.2 pph GBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the September 2008 stack test, NOx emissions were 2.93 pph.hr*

9. NOx 39.7 tpy 12-month rolling time period as determined at the end of each calendar month FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on 2015 MAERS report, the 12 month rolling average at the end of December 2015 was 11.85 tpy but 23.64 tpy in Appendix 1.7. Both numbers are below the limit. However further investigation is needed. AQD to follow up with the company.

10. Pb 0.067 pph FGBOFSHOP Secondary Baghouse and ESP stacks. IN COMPLIANCE. Based on the December 2012 stack test, Pb emissions were .0138 pph.

11. Mn 0.07 pph FGBOFSHOP Secondary Baghouse stack. IN COMPLIANCE. Based on the April 2013 stack test, Mn emissions were 0.0017 pph.

12. Mn 0.10 pph FGBOFSHOP Secondary Baghouse and ESP stacks. IN COMPLIANCE. Based on the April 2013 test result, Mn emissions were 0.063 pph.

13. Total Hg 0.0086 pph FGBOFSHOP Secondary Baghouse and ESP stacks. DID NOT EVAULATE. Unable to locate test result at this time.

II. MATERIAL LIMITS

1. Iron Processing shall not exceed 10,000 tons per day based on a calendar day for FGBOFSHOP (Reladling, Desulfurization). IN COMPLIANCE. Daily records are being maintained and were presented during the inspection for January through June 2016. No daily record was above 10,000 tons.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain a copy of the BOF secondary baghouse capture system design plans and a signed certification from the designer on site, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for both the BOF secondary emissions and the reladling south emissions. These design plans shall include a range of BOF vessel angles to achieve optimum emission capture. IN COMPLIANCE. This information was submitted during the 182-05C permitting process and is maintained by the facility.

IV. DESIGN/EQUIPMENT PARAMETERS

1 The permittee shall not operate the Basic Oxygen Furnaces or the Reladling South Operation unless the secondary baghouse is installed, maintained, and operated in a satisfactory manner. IN COMPLIANCE. Based on visual observation and inspection records, the baghouse appears to be operating properly.

2. The permittee shall make the following modifications to FGBOFSHOP within 180 days of the issuance of this permit:

   a) Install a steam ring or other equivalent barrier at A and B Vessels to mitigate the potential for emissions to escape through the lance hole,
   b) Close the gaps at the reline tower door/boiler hood door in the primary capture hood, and;
   c) Modify the charge hood flap to prevent emissions escaping during charge as the flap is drawn.

   IN COMPLIANCE. These changes were made as required. I do not have the specific dates that they were completed.

V. TESTING/SAMPLING

1. Permittee shall conduct overlapping performance tests for particulate matter emissions from the BOF secondary baghouse and opacity from the BOF roof monitor (including reladling operation and BOF oxygen blows) at least once during the ROP renewal period. IN COMPLIANCE. Test was conducted in October 2014. Roof monitor readings were conducted during the PM test.

2. Permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. IN COMPLIANCE. This information is in the stack test report.

3. Permittee shall determine and record the starting and stopping times of the steel production cycle.
   IN COMPLIANCE. This information was recorded during the October 2014 testing and is in the December 2014 stack test report.

4. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures:
   a. Concurrent with all opacity observations, measure and record values for each of the

operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in 40 CFR 63.7830(a).

b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment.

c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits.

d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan.

IN COMPLIANCE. The October 2014 test was conducted to reestablish operating limits per 40 CFR 63.7823 and 63.7824. The certification was submitted with the stack test report.

5. The permittee may change the operating limits for the baghouse capture system if the following requirements are met:

a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit.

b. Conduct a performance test to demonstrate compliance with the applicable operating limitation.

c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system.

IN COMPLIANCE. Testing was conducted in October 2014 to re-establish operating limits. Updated limits have been incorporated into the O&M plan. No requests to change the operating limits since that time have been received.

6. Within three years of the issuance of this permit, the permittee shall verify visible emissions, PM, PM10, PM2.5, and NOx emission rates from the BOF secondary baghouse stack during typical operations (including reladling operation) by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. IN COMPLIANCE. Testing for PM and VE was conducted in October 2014 for the secondary baghouse. However, three year deadline has not passed for the remaining pollutants.

7. Within three years of the issuance of this permit, the permittee shall verify and quantify Mn, Pb, and total Hg emissions rates from the FGBOFSHOP (secondary baghouse stack and ESP stack simultaneously) by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Mn, Pb and Hg dust concentrations in both the ESP hoppers and the baghouse hoppers. Subsequent Mn, Pb and Hg sampling of the ESP and baghouse hoppers is not required, unless requested by the AQD District Supervisor. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including ESP and baghouse dust analysis for Mn, Pb and Hg, to the AQD within 60 days. IN COMPLIANCE. The three year deadline has not passed; it is in May 2017

8.The permittee shall verify the capture efficiency for FGBOFSHOP using computational fluid dynamics (CFD) modeling or other approved method within three years of the issuance of this permit. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis. IN COMPLIANCE. The three year deadline has not passed; it is in May 2017.

VI. MONITORING/RECORDKEEPING

2. The permittee shall perform a Method 9 certified visible emission observation for the FGBOFSHOP secondary baghouse stack at least once every month during BOF operations (including reladling operations). The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. IN COMPLIANCE. Visible emission observations have been made once per month. No exceedances have been reported and therefore, no corrective actions have been needed.

3. The permittee shall prepare, and operate at all times according to, a written operation and maintenance plan for the baghouse capture system. The plan shall address each of the following:
   a. Weekly inspections of the equipment that is important to the performance of the total capture system, including, but not limited to, observations of the physical appearance of the equipment and requirements to repair any defect or deficiency in the capture system before the next scheduled inspection PENDING. Weekly inspections of the hood and ductwork and inlet and outlet plenum for the hot metal transfer and BOF charging and tapping were presented and are attached for the 2nd quarter 2016. Some weekly inspections indicated that the cable curtain around the treadwell opening was missing at the reladle. This persisted for several weeks and appears to be a deviation from this condition. It seems that this curtain is part of the equipment that is important to the performance of the total capture system. No issues were indicated with the tap and charge hoods. Further explanation is needed from the facility.
   b. Operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system including, but not limited to, operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. IN COMPLIANCE. The O&M plan contains this information and facility certifies continuous compliance with the parameters outlined in the plan. Damper positions and fan speed are tracked. The O&M plan is in the facility file.

4. The permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the following requirements of 40 CFR 63.7830(a):

   a. Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, the permittee shall make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test. NOT APPLICABLE. Dampers are not manually set but they do not remain in the same position so the 24 hour check is not required.
   b. If the permittee uses a flow measurement device to monitor the operating limit parameter for a sinter plant discharge end or blast furnace casthouse, the permittee shall monitor the hourly average rate (*e.g.*, the hourly average actual volumetric flow rate through each separately ducted hood, the average hourly total volumetric flow rate at the inlet to the control device) according to the requirements in 40 CFR 63.7832. NOT APPLICABLE
   c. If the permittee uses a flow measurement device to monitor the operating limit parameter for a capture system applied to secondary emissions from a BOPF, the permittee shall monitor the average rate for each steel production cycle (*e.g.*, the average actual volumetric flow rate through each separately ducted hood for each steel production cycle, the average total volumetric flow rate at the inlet to the control device for each steel production cycle) according to the requirements in §63.7832. NOT APPLICABLE.

5. The permittee shall monitor the pressure drop across each baghouse compartment daily to

ensure that the pressure drop is within the normal operating range identified in the manual, if applicable. IN COMPLIANCE. Log for 2016 was received and is attached.

6. The permittee shall conduct inspections of the EUBOFSHOP at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. IN COMPLIANCE. Monthly and quarterly inspection records from July 2015 through June 2016 were provided and are attached. No ongoing issues were documented.

   a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual. See attached log for 2016. Reason and corrective action taken for times the pressure drop was outside of the normal range are in the log.
   b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms. Weekly visual inspections are performed and documented. An example record is attached.
   c. Check the compressed air supply for pulse-jet baghouses each day. This is a reverse air baghouse.
   d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology. Cleaning cycles are continuously monitored and trended.
   e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means. This is checked in the monthly inspections.
   f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
   g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks. Quarterly records were presented.
   h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. Quarterly records provided for last two quarters as requested.

7. If applicable, the permittee shall develop and make available for inspection upon request by AQD a site-specific monitoring plan that addresses all of the following requirements for the baghouse capture system:
   a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each hooded emission point such that the measurement is representative of capture of the exhaust emissions;
   b. Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system;
   c. Performance evaluation procedures and acceptance criteria;
   d. Ongoing operation and maintenance procedures in accordance with the general requirements of
   40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
   e. Ongoing data quality assurance procedures in accordance with the general requirements of
   40 CFR 63.8(d); and
   f. Ongoing recordkeeping and reporting procedures in accordance the general requirements of
   40 CFR 63.10(c), (e)(1), and (e)(2)(i).

   IN COMPLIANCE. Plan was received on 8/12/16 and appears to contain all of the necessary elements.

8. If applicable, the permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall:
   a. Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data;
   b. Provide valid hourly data for at least 95 percent of every averaging period; and
   c. Determine and record the hourly average of all recorded readings.

IN COMPLIANCE. According to the plan, the CPMS is designed to operate as required in this condition and is operating in this fashion.

9. Except as allowed in S.C. VI.11, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control, if applicable:

   a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot).
   b. Provides output of relative changes in particulate matter loadings.
   c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level.
   d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time.

   IN COMPLIANCE. Bag leak detector is installed and is being maintained. Facility hired an outside contractor to check the system periodically. Most recent check was performed in December 2015 and the alarm was tested. Records were provided and are attached.

10. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan, if applicable. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.11. IN COMPLIANCE. Company has certified that no changes have been made.

11. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831 (h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. NOT APPLICABLE. A bag leak detection system is in place.

12. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). IN COMPLIANCE. The process is being monitored as required.

13. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. IN COMPLIANCE. Inappropriate data is not being used.

14. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. IN COMPLIANCE. Some deviations have been reported in the semiannual reports, but no ongoing issues operating as required in the O&M plan appear to be present.

15. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to
    40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period, if applicable. This requirement does not apply if the permittee installs COMS as specified in S.C. VI.11. NOT APPLICABLE.

16. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). DID NOT EVALUATE.

17. The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v). DID NOT EVALUATE. Did not evaluate whether company has this information.

18. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). IN

COMPLIANCE. Based on supporting information provided in the MAERS report, it appears facility is maintaining this information.

19. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63 Subpart FFFFF 63.7842(a), (b), (c) and (d). DID NOT EVALUATE. Did not evaluate whether company has this information.

20. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period NOx emission calculations for FGBOFSHOP secondary baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Facility is following methodology in Appendix 1.7. See attached. The company needs to update this Appendix with the most recent stack test results as allowed in the PTI. This does not require approval from the district supervisor.

21. The permittee shall keep on a daily basis, record of the amount of iron processed at the BOF shop. The permittee shall keep the records on file at the facility and make them available to the department upon request. IN COMPLIANCE. Daily records are being maintained and were presented during the inspection for January through June 2016.

22. The permittee shall perform a Method 9C certified visible emission observation for the FGBOFSHOP roof monitors at least three times per week on separate days during BOF operations for a minimum of two hours which must include two complete heats. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken.

    a) If visible emissions from the EUBOFSHOP Roof Monitor exhibit opacity greater than 10%, on a three-minute average, the permittee shall investigate the reasons for the exceedance and shall verify that the appropriate work practices set forth in SC VI.22.b were followed. Any instance of EUBOFSHOP Roof Monitor opacity in excess of 10% for a 3-minute average shall be defined herein as a period of Elevated Opacity. IN COMPLIANCE. Investigations have been performed when opacity has been above 10%. Reports of these investigations are in the facility file.

    b) In the event of a period of Elevated Opacity, the permittee must be able to demonstrate that the following work practices standards for FGBOFSHOP were followed. The following work practices can be amended or revised upon approval of the AQD District Supervisor:

        i) Hot metal shall not be poured at the reladling station until the hood is in the closed position.
        ii) Additive injections shall not occur until the desulfurization baghouse ID fan is operating at greater than 65 amps.
        iii) The fan speed for the BOF Secondary Baghouse control system shall be maintained in accordance with the set points (+/- 2% of the measured speed) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
        iv) The dampers in the BOF Secondary capture system shall be maintained in accordance the set points (+/- 10% the measured position) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
        v) The hot metal charges at the BOF vessels are a minimum 90 second long.
        vi) During charging of the BOF Vessels the charge angle shall be no less than 40 degrees and not exceed 55 degrees from vertical as the charge progresses.
        vii) During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor.
        viii) Charging should not be conducted until the associated dampers have been set to charging mode and had time to move to correct position.
        ix) After charging, the vessel shall not be moved to an upright position until online mode

has been selected.

x) The current operating mode on the off charge vessel shall not change from tapping to online or offline, or online to offline mode, until the charge is complete.

xi) Maintain steel ladle under the tapping hood during kicker addition until the emissions have subsided.

xii) Tapping should not be conducted until the associated dampers have been set to tapping mode and had time to move to correct position.

c) In the event of deviation from any work practice requirement, the permittee shall undertake immediate corrective action to address the deviation. The permittee shall keep a written record of each corrective action taken. The permittee shall keep the records on file at the facility and make them available to the department upon request. IN COMPLIANCE. Corrective actions have been submitted when a work practice was not followed.

23. The permittee shall monitor and record the work practice standards listed in SC VI.22.b using a data control system and work logs. The permittee shall keep the records on file at the facility and make them available to the Department upon request. DID NOT EVALUATE. Did not request all records of work practice standards at this time.

24. The permittee shall conduct quarterly visual inspections to confirm the continued presence of physical barriers utilized to assist in maintaining capture efficiency, including shrouds and gap closures. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Records were provided for the last year and are attached. The quarterly inspection frequency was met for both vessels. Some shroud plates were missing and new ones were ordered and repairs were made. Documentation was provided and is attached.

25. The permittee shall verify the fan flow conditions for FGBOFSHOP, as specified in the operation and maintenance plan, at least once per calendar year or more frequently as deemed necessary by the AQD District Supervisor. The flow rate verifications will be conducted in the ductwork riser connecting the charge and tap hoods to the main duct connecting it to the baghouse avoiding, to the extent possible, cyclonic flows. If the flow rate verification identifies a need to revise any set points, then Severstal shall update the fan speed and/or damper positions, as necessary, in the operation and maintenance plan as well as all procedures necessary to implement any such new set points. Any changes in the set points are subject to a retest under SC V.5. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Test results for 2015 and were presented and are attached.

26. The permittee shall verify the damper positions for FGBOFSHOP on a quarterly basis. The permittee shall also inspect and calibrate the damper position to ensure that the actuator is achieving the desired set point for each operating scenario as defined in the operation and maintenance plan. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Records of quarterly damper checks were provided for the last 4 quarters and are attached.

27. The permittee shall verify the fan speed/amperage set point for FGBOFSHOP on a quarterly basis, this will include verification of fan speed measurements and calibrations using an independent measurement of the amperage/speed. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Records of quarterly fan speed checks were provided for the last 4 quarters and are attached.

28. The permittee shall perform preventative maintenance on the EUBOFSHOP ESP and baghouses as specified in the operation and maintenance plan for each control device. See condition 6 above.

29. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm, if applicable. NOT APPLICABLE. Company certified no alarms have been experienced in the last year. Certification is attached.

30. The permittee shall maintain a copy of the current operation and maintenance plans required in SC VI.27 onsite and available for inspection. IN COMPLIANCE. Plan was provided and is in the facility file.

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. . DID NOT EVALUATE. Did not evaluate whether every notification has been submitted at least 60 days in advance. Regardless of the lead time, notifications to test have been submitted.

2. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). N/A. No reports have been received on actions inconsistent with the SSM plan.

3. The permittee shall provide quarterly reports to MDEQ AQD Detroit Office regarding each instance of Elevated Opacity. The report shall include the relevant visible emissions readings, documentation of compliance with work practice requirements, and identification of all corrective actions taken. The quarterly report shall be provided by the last day of the month following the end of each calendar quarter. IN COMPLIANCE. Reports have been received.

4. Within 60 days of completing the CFD modeling or other approved method required in V.8, the permittee shall submit a report regarding the evaluation of emission collection equipment to the AQD District Supervisor that will identify whether boundary conditions have materially changed. The report shall state whether equipment or process adjustments are necessary to maintain the minimum capture efficiency indicated by the computational fluid dynamics (CFD) modeling submitted with the 182-05C Application and if so, identify what adjustments are anticipated and identify a schedule for making such adjustments. NOT APPLICABLE. CFD modeling has not yet been performed; due by May 2017.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted: SVBOFESP – 204 inches (Max diameter), 213 ft – min height above ground SVBOFBH 222 in (max diameter), 200 ft (min height above ground). IN COMPLIANCE. According the MAERS report and information submitted with permit to install 182-05C, the ESP is at least 213 feet above ground and 204 inches in diameter. SVBOFBH has
already been evaluated above.

IX. OTHER REQUIREMENTS

1. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. DID NOT EVALUATE. Did not request 5 years of records at this time.

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. IN COMPLIANCE. Based on conditions from the MACT that were evaluated above.

The following conditions apply to: EUBOF
DESCRIPTION: Basic oxygen furnace (BOF) including charging, oxygen blowing, tapping and slag tapping. Two vessels controlled by an electrostatic precipitator and a secondary emissions baghouse.
Flexible Group ID: FGBOFSHOP
POLLUTION CONTROL EQUIPMENT: One Electrostatic Precipitator for both BOF Vessels, BOF

Secondary Baghouse for fugitive emissions and reladle

I. EMISSION LIMITS

1. IN COMPLIANCE. Corrective actions have been taken when hourly average opacity has exceeded 10%. Visible emissions 10% Opacity, as a trigger for corrective action Hourly average EUBOF ESP stack

2&3. Visible emissions 20% Opacity 3-minute average EUBOF Shop building and roof monitor. IN COMPLIANCE. Since January 2015, approximately 9 exceedances have been observed. All have been accompanied by an investigative report and corrective actions, when applicable. It does not appear that same root cause is continuing without being addressed. Also, facility takes 6 hours of readings of the roof monitor a week which includes 12 complete heats per week; 72 per quarter. As such, facility is substantively in compliance with this condition at this time.

4. PM 0.0152 gr/dscf EUBOF ESP stack. IN COMPLIANCE. Based on the April 2013 stack test, PM emissions are .00105 gr/dscf.

5. PM 0.02 gr/dscf EUBOF ESP stack. IN COMPLIANCE. Based on the April 2013 stack test, PM emissions are .00105 gr/dscf.

6. PM 62.6 pph EUBOF ESP stack. IN COMPLIANCE. Based on the April 2013 stack test, PM emissions are 4.46 pph.

7. PM 61.9 tpy 12-month rolling time period as determined at the end of each calendar month EUBOF
Roof monitor. IN COMPLIANCE. Based on the records from Appendix 1.7, 40.51 tpy on a 12 month rolling time frame was the highest emissions from Dec 2014 through Jun 2016.

8. PM10 47.5pph EUBOF ESP stack. IN COMPLIANCE. Based on the April 2013 stack test, PM10 emissions are 6.43 pph.

9. PM10 28.3 tpy 12-month rolling time period as determined at the end of each calendar month EUBOF
Roof monitor. IN COMPLIANCE. Based on records from Appendix 1.7, 18.51 tpy on a 12 month rolling time frame was the highest emissions from Dec 2014 through Jun 2016.

10. PM2.5 46.85 pph EUBOF ESP stack. IN COMPLIANCE. Based on the April 2013 stack test, PM2.5 emissions are 6.43 pph.

11. PM2.5 20.2 tpy 12-month rolling time period as determined at the end of each calendar month EUBOF Roof monitor. IN COMPLIANCE. Based on the records from Appendix 1.7, 13.23 tpy on a 12 month rolling time frame was the highest emissions from Dec 2014 through Jun 2016.

12. NOx 52.9 pph EUBOF ESP stack. IN COMPLIANCE. Based on the Oct 2014 stack test, NOx emissions are 25.4 pph.

13. NOx 162.1 tpy 12-month rolling time period as determined at the end of each calendar month EUBOF ESP stack. IN COMPLIANCE. Based on the 2015 MAERS, 12 month rolling average at the end of December 2015 was 82.16 tpy and in Appendix 1.7 it is 94.57 tons. Both values are in compliance, but discrepancy needs follow up with the facility.

14. CO 7,048 pph EUBOF ESP stack. IN COMPLIANCE. Based on the Oct 2014 stack test, CO emissions are 2,286 pph as calculated by stack testers.

II. MATERIAL LIMITS

1. Steel Production 12,200 tons per day Calendar Day. IN COMPLIANCE. Daily records for 2016 from January through June were presented during the inspection. None of the daily records exceeded 12,200 tons. Highest was 9,067 tons.

2. Steel Production 4,052,230 tons per year 12-month rolling time period basis as determined at the end of each calendar month. IN COMPLIANCE. 12 month rolling emissions from Jan 2015

through June 2016 were presented. Highest 12 month rolling was 2,630,834 tons.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUBOF off-gas conditioning system which provides additional air-atomized water spray, shall be maintained as part of the off gas conditioning system and shall be included in the operation and maintenance plan for the BOF ESP. IN COMPLIANCE. Conditioning system is included in the O&M plan; see facility file for the plan.

2. The BOF vessels and ESP shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. IN COMPLIANCE. Compliance is based on stack test results, inspection records, and VE readings in the Iron and Steel MACT.

3. The permittee shall operate the BOF capture system and ESP according to an operation and maintenance plan that meets the requirements as follows: IN COMPLIANCE. The O&M plan is in place and appears to contain the required elements. It includes weekly and monthly inspections of the capture system, preventative maintenance on control devices, operating limits for the BOF capture system (in the plan), and corrective action procedures in response to a BLD alarm. Inspection records were presented and are attached including quarterly ESP conveyor, quarterly ESP ID fans, quarterly A and B vessel primary louvers, weekly prec checks (air dryer, purge air, hopper heaters, surge bin heaters), and monthly downcomer draft transmitter.

4. The permittee shall develop and implement a written startup, shutdown and malfunction plan for the BOF vessels and the associated emission control system. IN COMPLIANCE. An SSM plan is in place and is in the facility file.

5. During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen flow rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor. IN COMPLIANCE. Vessel is observed for slopping.

6. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, it shall be broken up with a breaking ball. NOT APPLICABLE. According to the facility, this has not happened.

7. The ESP dust handling conveyor at the Basic Oxygen Furnace Building shall have a 180 degree cover over the belt. DID NOT EVALUATE. Did not observe ESP dust handling at this time.

8. ESP dust shall be moved by covered belt conveyor to a storage bin and, if transported offsite, the ESP dust, including coarse dust collected in a drop chamber, shall be wetted and transported by a covered truck, or shall be transported by a pneumatic truck to a landfill or other approved facility for recycling and/or disposal. DID NOT EVALUATE. Did not observe ESP dust handling at this time.

9. Within 60 days of permit issuance, the permittee shall develop and make available for inspection upon request by AQD a site-specific monitoring plan that addresses all of the following requirements for the BOF ESP in (40 CFR 63.7831(a)). IN COMPLIANCE. Plan was submitted on 8/12/16 and appears to contain the necessary elements. Plan is in the facility file.

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUBOF unless the ESP is installed and operating properly. IN COMPLIANCE. An enhanced O&M program and detailed investigation and corresponding report of any exceedance of the 20% 6 minute average opacity limit detected by the COMS is in place due to the Consent Decree (Civil Action No. 15-cv-11804). At this time, it appears the facility is meeting these requirements which ensure the ESP is installed and operating properly.

2. The permittee shall not operate the EUBOF unless the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner. IN COMPLIANCE. Compliance determination based on stack test results and VE readings.

3. The permittee shall not operate EUBOF controlled by an ESP control system unless each transformer-rectifier set of the ESP is equipped with a saturable core reactor, silicon-controlled rectifier linear reactor, or equivalent type automatic control system approved by the AQD District Supervisor. N/A. Rule rescinded.

4. Each automatic controller shall be set to provide maximum power, or optimal power if operating in a sparking mode, from its respective transformer-rectifier set. N/A. Rule rescinded.

5. Each transformer-rectifier set shall be capable of operating in a spark-limited mode and shall meter and display the primary RMS voltage and amperage, the average secondary amperage, and the average spark rate. N/A. Rule rescinded.

V. TESTING/SAMPLING

1. Permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. Testing shall be performed with test methods as specified in 40 CFR 63.7822. IN COMPLIANCE. Testing was performed in July 2011 and April 2013. Next test is scheduled for September 2016.

2. Permittee shall conduct performance tests for particulate matter emissions and opacity at least twice during the ROP renewal period. IN COMPLIANCE. Testing was performed in July 2011 and April 2013. Next test is scheduled for September 2016.

3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. IN COMPLIANCE. See stack test results for this information.

4. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following:

   a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9.
   b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.

   IN COMPLIANCE. See stack test results for this information.

5. Opacity observations from the roof monitors must cover at least three steel production cycles. A production cycle begins when scrap is charged and ends three minutes after slag is emptied from the vessel into the slag pot. IN COMPLIANCE. See stack test results for this information.

6. Permittee shall determine and record the starting and stopping times of the steel production cycle. IN COMPLIANCE. See stack test results for this information.

7. The permittee shall verify visible emissions, PM, PM10, PM2.5, NOx, and CO emission rates from the EUBOF ESP stack (including BOF oxygen blows), by testing at owner's expense, in accordance with Department requirements, within 180 days after permit issuance unless a test has been completed within two years prior to the effective date of this permit and the results submitted to the AQD for approval. The PM testing shall be performed with test methods as specified in Rule 336.1331. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days

following the last date of the test. NOT IN COMPLIANCE. NOx and CO were tested in October 2014 and the next test is not due until October 2017. PM, PM10 and PM 2.5 were tested in Apri 2013 (within two years on the permit issuance date of May 2014). As such, the next test was due April 2016 (within "three years from the completion of the previous stack test"). Testing was not performed by that date; it is scheduled for September 2016.

VI. MONITORING/RECORDKEEPING

2. The permittee shall install, operate and maintain a continuous opacity monitor on the EUBOF ESP stack and monitor the hourly average opacity of the stack continuously when the process is in operation. The Continuous Opacity Monitoring System (COMS) shall provide valid 1 hour averages for at least 95 percent of process operating hours for every quarterly reporting period. COMS data must be reduced to 6-minute averages as specified in §63.8(g)(2) and to hourly averages where required by Subpart FFFFF. The permittee shall operate the EUBOF ESP COMS to meet the timelines, requirements and reporting detailed in Appendix 1.3.3 and shall use the COMS data for determining compliance with SC I.1. IN COMPLIANCE. Hourly and 6 minute averages are maintained. See attached example.

3. The permittee shall perform a Method 9 certified visible emission observation of EUBOF ESP stack at least once every week during operation for a minimum of one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. IN COMPLIANCE. No deviations from the emission limit based on VE readings have been reported.

4. The permittee shall perform a Method 9C certified visible emission observation of the BOF roof monitors and a Method 9C certified visible emission observation of the BOF shop building, including reladling and desulfurization operations, at least once a week during BOF operations for a minimum of one hour, which must include one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the permit limit and shall keep a written record of each required observation and corrective action taken. The written record shall include all of the information required for the BOF camera log in SC VI.28.c. The permittee shall review the written record on a monthly basis and verify all relevant information has been included. IN COMPLIANCE. VE frequency has been met and corrective actions have been documented and presented to AQD.

5. The permittee shall perform a Method 9C certified visible emission observation during each beaching event that occurs during daylight hours unless impractical due to an emergency situation. When beaching within the BOF building, the visible emissions observation shall include the BOF roof monitors and BOF shop building, and when beaching outdoors, the visible emissions observation shall be conducted of the outdoor beaching location. Permittee shall maintain of log of each occurrence which shall include date, start time, stop time, location of beaching event, visible emissions observations or the reason why such observation was not conducted, and reason for beaching. DID NOT EVALUTE. At this time, I am unaware of the occurrence of any recent beaching events. AQD will request information in the next inspection cycle.

6. Within 60 days of issuance of this permit, the permittee shall update on-site screening procedure and scrap management plan, or alternate plan(s) as approved in writing by the AQD District Supervisor. The plan(s) shall be implemented and maintained immediately after approval. The on-site screening procedure and material management plan will facilitate the permittee's efforts in controlling mercury and/or other toxics and VOC emissions by eliminating unacceptable scrap and eliminating or reducing scrap with mercury contaminated materials. The permittee shall require all suppliers to document that mercury-containing devices and switches have been removed from the scrap. IN COMPLIANCE. Plan was submitted within the required timeframe and is in the facility file.

7. If applicable, the permittee shall operate and maintain the EUBOF ESP CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall:
   a. Complete a minimum of one cycle of operation for each successive 15-minute period

and collect a minimum of three of the required four data points to constitute a valid hour of data;
b. Provide valid hourly data for at least 95 percent of every averaging period; and
c. Determine and record the hourly average of all recorded readings.
IN COMPLIANCE. According to the plan, the CPMS is designed to operate this way and is operating in this fashion.

8. The permittee shall monitor the process as required, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). IN COMPLIANCE. Process is monitored as required.

9. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. All other data collected during all other periods must be used in assessing compliance. IN COMPLIANCE. Inappropriate data is not in use.

10. Pursuant to 40 CFR 63.7833(g), if the hourly average opacity for the EUBOF ESP exceeds 10 percent, the permittee shall follow the procedures below. UNABLE TO DETERMINE. Based on the unclear wording of this regulation, compliance cannot be determined. However, it does not appear that 10% hourly exceedances are ongoing without corrective actions.

a. Initiate corrective action to determine the cause of the exceedance within 1 hour. During any period of corrective action, the permittee must continue to monitor and record all required operating parameters for equipment that remains in operation, such as total power input (voltage and secondary current) of the ESP fields, off-gas conditioning system prior to the ESP (water flow rate within standard operating levels) and any other parameters that are necessary for proper operation of the ESP. Within 24 hours of the exceedance, the permittee must measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the 10 percent limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

b. If the initial corrective action was not successful, the permittee must complete additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, permittee must continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24-hour period, permittee must again measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the
10 percent limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

c. Measurements of the hourly average opacity based on visible emission observations in accordance with Method 9 (40 CFR part 60, Appendix A) may be taken to evaluate the effectiveness of corrective action.

d. If the second attempt at corrective action was not successful, the permittee must report the
exceedance as a deviation in their next semiannual compliance report according to §63.7841(b).

11. The permittee shall perform preventative maintenance on the EUBOF ESP as specified in the operation and maintenance plan for the ESP. IN COMPLIANCE. Based on records presented during inspection and attached, appropriate preventative maintenance appears to be performed.

12. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63
Subpart FFFFF 63.7842(a), (b), (c) and (d). IN COMPLIANCE. Based on conditions evaluated in this report, facility had required records.

13,14. DID NOT EVALUATE. Did not evaluate whether company has all of these records.

The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)).

The permittee shall maintain the records required for startup, shutdown and malfunction under 63.6(e)(3)(iii) through (v).

15. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). IN COMPLIANCE. Based on supporting information submitted with the MAERS report, it appears that the facility is maintaining this information.

16. The permittee shall maintain records of the following for the continuous opacity monitor. IN COMPLIANCE. All of the data below is maintained and available for the COMS.
    a. Periods when the monitor is malfunctioning or inoperative;
    b. All required measurements necessary to demonstrate compliance with a standard (including, but not limited to, 15-minute averages of monitoring data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
    c. All results of performance tests, monitor performance evaluations and opacity and visible emission observations;
    d. All measurements necessary to determine the conditions of performance tests and evaluations;
    e. All monitor calibration checks;
    f. All adjustments and maintenance performed on the continuous monitor;
    g. Monitoring data produced during performance testing;
    h. Superseded versions of the performance evaluation plan; and
    i. The date and time each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, malfunction, or during another period.

17. The permittee shall record the oxygen flow rate at least once every minute during each oxygen blow. IN COMPLIANCE. Oxygen blow rate is monitored continuously and meets the required frequency for recording.

18. The effectiveness of the slopping procedure shall be monitored via the BOF Monitoring and Evaluation Requirements in paragraph 12 of MDEQ Consent Order 6-2006. IN COMPLIANCE. At this time, slopping procedure appears to be adequate.

19. The permittee shall maintain records of any new draft control equipment or instrument installation, and shall document that the draft set point programming is working properly after any such installation.
    N/A. No draft set point new equipment installed.

20. The effectiveness of the draft set point program shall be monitored via the BOF Monitoring and Evaluation Requirements in Paragraph 12 of MDEQ Consent Order 6-2006. N/A. No new draft set point equipment has been installed.

21. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, the permittee shall notify the AQD Southeast Michigan District office of such fact, and of its compliance with the breaking ball requirement set forth in III.8 of this section. N/A. This situation has not occurred.

22. The permittee shall inspect the exterior of the Guillotine Relief Dampers, Relief chambers and Downcomer on a weekly basis for evidence of exhaust leaks. Records of each inspection, to include the name of the inspector, the time and date of the inspection, shall be maintained for a period of five years. IN COMPLIANCE. Sample of records is attached. Also provided was a summary log of cause of leak and corrective action taken.

23&24. IN COMPLIANCE. Performance of repairs is documented. Records are attached for 2016. Repairs appear to be generally initiated within the same time frame as the detection of the leak or in a timely fashion during a scheduled outage.

If the inspection identifies an exhaust leak likely to cause visible emissions, repair procedures shall be initiated. If the exhaust leak is identified during an operating period, temporary repairs shall be initiated within twenty-four (24) hours of verification of the leak. If the leak is identified during an outage, initiation of repairs shall be coordinated with any scheduled repairs.

Following completion of either temporary or permanent repairs, an inspection will be conducted during operation of the affected vessel. The performance of the repair shall be recorded. If additional repair is necessary, it will be scheduled and implemented in accordance with SC VI.24 of this section until the leak is no longer a source of emissions.

25. Upon termination of MDEQ Consent Order 6-2006, if an inspection of the exterior of Guillotine Dampers, Relief Dampers, and Downcomer reveals an exhaust leak likely to lead to excess visible emissions, appropriate temporary or permanent repairs shall be initiated within twenty-four (24) hours of verification of the leak and shall be completed until leak is no longer a source of excess emission. NA. Consent Order not yet terminated.

26. The permittee shall install 8 digital cameras at the BOF to better obtain continuous, real-time information about the status of its operations at the BOF and BOF emission points. IN COMPLIANCE. Cameras are in operation

27. The images from the 8 cameras will be transmitted to the BOF pulpits for A and B vessels, to the ESP pulpit and to a conference room in the BOF. If excess emissions are observed from the BOF Roof Monitor, then,

    a. The appropriate operator(s), if other than the viewer of the image, shall be immediately notified.
    b. Any reasonable immediate corrective action that can be taken to address the emission shall be taken.
    c. A log entry will be made of the observation, including the date and time of the observation, the source of the emissions and the cause, if known. If the cause is not known, an immediate investigation of the cause shall be undertaken, and the log updated with the results of such investigation.

    IN COMPLIANCE. Images from cameras are transmitted to the required locations. Information required in the log is maintained and submitted to AQD. See facility orange file for examples.

28. The images recorded by the cameras once every three seconds shall be stored so that the images can be retrieved for up to thirty (30) days. The images shall be stored such that images of a particular date and time can be identified and recalled. IN COMPLIANCE. According to the facility, images are retained for 30 days.

29. NOT APPLICABLE. CO still in effect. Condition refers to what happens after the termination of the provisions of MDEQ Consent Order 6-2006, Paragraph 12(A)

30. The permittee shall keep daily and monthly records of the amount of steel produced, in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Daily and monthly production records are maintained and were presented during the inspection.

31. The permittee shall keep monthly records of the hot metal charging tonnage, steel tapping tonnage and slag tapping tonnage in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Monthly production records are maintained and were presented during the inspection.

32. Using the method shown in Appendix 1.7, the permittee shall calculate monthly and 12-month rolling time period NOx emission rates from EUBOF ESP stack. The permittee shall

keep all records on file at the facility and make them available to the Department upon request. IN COMPLIANCE. Records are maintained in accordance with the methods specified in Appendix 1.7 See attached.

33. Using the method shown in Appendix 1.7, the permittee shall calculate the monthly and 12-month rolling time period for PM, PM10, and PM2.5 emission rates for EUBOF roof monitor. The permittee
shall keep all records on file at the facility and make them available to the Department upon request.
IN COMPLIANCE. Records are maintained in accordance with the method in Appendix 1.7 See attached.

34. The permittee shall maintain a copy of the current operation and maintenance plans required in this section onsite and available for inspection. IN COMPLIANCE. Current O&M plan is maintained by the facility and readily available for inspection. AQD has a copy. See facility file.

35. The permittee shall maintain records of the monitoring data from the continuous opacity monitor. IN COMPLIANCE. Records from the opacity monitor are maintained; example is attached.

36. Permittee shall conduct certified visible emissions observations of the EUBOF Roof Monitors using Method 9C for a minimum of two (2) hours per week. The observations must include two (2) complete heats. The emissions observations must be recorded as they are made, with observations recorded at fifteen (15) second intervals. If any exceedance of visible emission standards is observed at the BOF roof monitors, the permittee shall conduct an investigation into the cause of the exceedance. The investigation shall consider data collected by the cameras that are required by Consent Order 6-2006, Paragraph 12(A). IN COMPLIANCE. Facility is observing the roof monitor for 6 hours per week, 2 hours per day and 2 complete heats per observation day. Records are maintained at the facility. If exceedances are observed, AQD receives a report of investigation and corrective action taken.

VII. REPORTING

1. Permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. DID NOT EVALUATE. Did not evaluate whether 60 days notice has always been given. Regardless of lead time, notice has always been received.

2. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 63.10(d)(5)(ii). NOT APPLICABLE. No instances of action inconsistent with the SSM plan have been reported.

3. The permittee shall prepare a report for each exceedance in which it shall identify the date, time and extent of the exceedance, as well as a description of the investigation into the cause of the exceedance. The report shall identify the cause of the exceedance, to the extent ascertainable, and identify corrective action to prevent a recurrence of the exceedance. The reports generated pursuant to this requirement shall be sent to the AQD Southeast Michigan District Supervisor within fourteen (14) days of the occurrence. IN COMPLIANCE. Reports have been submitted and are in the facility file.

4. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report of COMS exceedances in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter as required in Appendix 1.3.3. IN COMPLIANCE. COMS quarterly reports have been submitted within 30 days following the end of the calendar quarter and are in the facility file.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed

vertically upwards to the ambient air unless otherwise noted: ESP and secondary baghouse heights have already been evaluated in this report. IN COMPLIANCE.

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF as specified in this section, except during periods of startup, shutdown and malfunction.IN COMPLIANCE. Compliance as it relates to the ESP and secondary baghouse and is based on conditions evaluated in this report.

2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. DID NOT EVALUATE. Did not request 5 years of records at this time.

3. The permittee shall evaluate the effectiveness of the draft set point program each time any new draft control equipment or instruments are installed that could cause affect use of the appropriate draft point setting. NOT APPLICABLE. No new draft control equipment has been installed.

4. The permittee may petition in writing for a modification or termination of the draft set point program as described in IX.6 of this section. The petition shall be submitted to the AQD Southeast Michigan District Supervisor for approval. In any such petition, the permittee has the burden of proof. NOT APPLICABLE. No petition has been submitted.

5. Upon approval of the AQD Southeast Michigan District Supervisor, the permittee may change the specified location of the cameras detailed in VI.26 of this section. Such approval shall be in writing and will be incorporated by reference as a revision to MDEQ Consent Order 6-2006. NOT APPLICABLE. Camera locations have not been requested to be changed.

6. Following installation of the BOF secondary emission control equipment, the permittee may petition the AQD Southeast Michigan District Supervisor for elimination of any or all of the requirements for camera operation or visible emissions monitoring as described in SC VI.24, SC VI.25, and SC VI.26 of this section. NOT APPLICABLE. Cameras are still in operation.

7. The permittee shall not conduct any torch cutting of scrap at the EAF Stockhouse or any outside areas for use in the BOF, exclusive of demolition of existing facility structures, building and equipment, and emergencies unless it first obtains any necessary permit from the AQD to conduct such activity.
NOT APPLICABLE. AQD has not observed, during inspection and off site surveillance, any torch cutting performed on site.

8. The permittee shall record the specific information as required in the on-site screening procedure and scrap management plan. All such records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. DID NOT EVALUATE AT THIS TIME.

9. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. NOT APPLICABLE. Initial compliance date has passed; it was 10 years ago.

COMPLIANCE DETERMINATION

At this time, the facility was determined to be in non compliance at EUBOFDESULF (the desulfurization and slag skimming station) as self-reported by the facility during the inspection. Also, the ESP stack test was not conducted in a timely manner. A violation notice will be issued.

NAME Katie Kobe DATE 9/28/16 SUPERVISOR W.M.