

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> AK STEEL - DEARBORN WORKS		<b>SRN :</b> A8640
<b>Location :</b> 4001 MILLER ROAD		<b>District :</b> Detroit
		<b>County :</b> WAYNE
<b>City :</b> DEARBORN	<b>State:</b> MI	<b>Zip Code :</b> 48120
<b>Compliance Status :</b>		<b>Compliance</b>
<b>Source Class :</b> MEGASITE		<b>Staff :</b> Katherine Koster
<b>FCE Begin Date :</b> 4/21/2014		<b>FCE Completion Date :</b> 4/21/2017
<b>Comments :</b> At the time of completion, there were no ongoing non compliance issues at this facility.		

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
04/21/2017	Scheduled Inspection	Compliance	2017 Scheduled Inspection

03/30/2017	Stack Test	Compliance	<p>Stack test report received for the LRF #1 and #2. The stack test was performed from October 31-November 4, 2016. The test plan was received on September 14 and the approval letter was issued on October 20. Copies are in the appendices of the test report. Testing was conducted for PM, PM2.5, PM10, and lead for each ladle refining furnace. Tests results were as follows:</p> <p>LRF#1 PM: 0.0003 gr/dscf (0.005 gr/dscf permit limit) and 0.2 lb/hr (6.33 limit); PM2.5/10: 0.82 lb/hr (6.65 lb/hr limit); Pb: 0.004 lb/hr (0.022 lb/hr limit)</p> <p>LRF#2 PM: 0.0005 gr/dscf (0.005 gr/dscf permit limit) and 0.25 lb/hr (3.72 limit); PM2.5/10: 0.47 lb/hr (3.91 lb/hr limit); Pb: 0.002 lb/hr (0.013 lb/hr limit)</p> <p>A review of the process data indicates that the tons processed/hour ranged from 108 to 492 tons per hour for LRF#1 and 156 to 410 tons per hour for LRF#2. Some runs only required one heat to collected the necessary sample volume while others required several. I discussed this wide production range with Dave Pate, AK Steel, as the hourly production has been more consistent throughout the testing in the past. He attributed the difference in tons per heat to the length of each heat (which varies) and part of the variability is whether the caster is "ready" for the heat. If it is not, the heat will stay at the LRF and heating and stirring will occur intermittently while waiting. He stated that none of the heats were deliberately prolonged solely for testing purposes and that this is how the process normally operates. Based on a review of the process and baghouse data, there appeared to be a variety of steel produced and the baghouses were operating properly. Despite the concern with the production numbers, even the runs with the highest production resulted in emissions values well below the limits. As such, the test is acceptable at this time. Note, it has not yet been reviewed by TPU.</p>
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03/30/2017	Stack Test	Compliance	<p>***** ***** *****</p> <p>UPDATE: TPU staff, Mr. Mark Dziadosz, completed review of the test report on 5/8/17. His memo is attached. The AQD calculated values for PM10/2.5 differ slightly from the tester's reported value. This is because the testers blank corrected all of the condensable PM10/2.5 even though some of the data was non-detect which biased the numbers low. AQD values for LRF#1 for PM10/2.5 was 0.91 lb/hr (0.82 BTEC value); LRF#2 for PM 10/2.5 was 0.59 lb/hr (0.47 BTEC value). Regardless, all values are below the limits of 6.65 lb/hr for LRF#1 and 3.91 lb/hr for LRF #2.</p>
03/17/2017	Malfunction Abatement Plan	Compliance	<p>Dearborn Great Lakes LLC recently obtained a PTI (114-16) to install a hard chrome electroplating line at AK Steel. This operation will become a section of the AK Steel ROP. The PTI and NESHAP N requires the submission of an Operation and Maintenance Plan. The plan was received on 1/3/17. It was due within 30 days of permit issuance. Permit issuance was on December 16, 2016.</p>
03/16/2017	CO/CJ	Non Compliance	<p>Letter received reporting three exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor on November 4; two of which was also exceedances of the 20% 3 minute average limit. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Root cause was leakage from B vessel expansion joint during a heat. Packing was applied and more permanent repairs were made during an outage. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p>

Activity Date	Activity Type	Compliance Status	Comments
03/16/2017	MACT (Part 63)	Compliance	<p>Facility submitted semi annual SSM report for the HCl steel pickling line. Report states all actions were consistent with the SSM Plan. However, it is unclear whether there was a malfunction or not. AQD to follow up with facility. UPDATE: Per my conversation with Dave Pate, AK Steel, on 3/28/17, there have been no malfunctions of the pickle line scrubber.</p> <p>63.1164(c) states: Reporting malfunctions. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half.</p>
03/16/2017	Malfunction Abatement Plan	Compliance	<p>Revised MAP submitted on 11/7/16 for the PLTCM Scale Breaker Baghouse and the PLTM Fume exhaust. These will be fully reviewed upon the next inspection of this equipment. At this time, they are approved within 90 days of submittal per the permit language unless told otherwise. AQD has the opportunity to require amendments to the MAP if it is determined to be inadequate.</p>

Activity Date	Activity Type	Compliance Status	Comments
03/16/2017	Malfunction Abatement Plan	Compliance	Revised MAP submitted on 3/9/2016 for the HDGL Precleaner and NOx SCR control system. These will be fully reviewed upon the next inspection of this equipment. At this time, they are approved within 90 days of submittal per the permit language unless told otherwise. AQD has the opportunity to require amendments to the MAP if it is determined to be inadequate.
03/16/2017	Other	Compliance	Surveillance
03/15/2017	ROP Other	Compliance	2016 MAERS ROP Certification Form. Compliance as it relates to submitting the form.
03/15/2017	ROP Other	Compliance	2016 MAERS ROP Certification Form. Compliance as it relates to submitting the form.
02/17/2017	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received for the 4th quarter 2016. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.
02/17/2017	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2016 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.2% (4 hours) and was reviewed by TPU staff. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
02/17/2017	CO/CJ	Compliance	Facility submitted the 4th quarter 2016 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly block opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 2.5 hours of downtime were reported. No further action is required at this time.
02/17/2017	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2016 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 4.1% (82 hours). Downtime was reviewed by TPU staff. No further action is required at this time.
01/26/2017	Other Non ROP	Compliance	Facility submitted a revised scrap management plan for review and approval by the Detroit District Supervisor. This plan required approval per PTI 182-05C, EUBOF, Section VI.6. The attached approval was sent via email by Ms. Mina McLemore on 1/26/17.

Activity Date	Activity Type	Compliance Status	Comments
01/25/2017	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 16% occurred on October 4. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Root cause was lower than normal draft to ESP due to one compartment down for maintenance. Adjustment were made to louvers to increase draft which reportedly corrected the problem. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
12/28/2016	Stack Test	Compliance	<p>A test of the desulfurization baghouse was performed on October 4-6, 2016. The test was performed to determine compliance with the PM, PM10, PM2.5, Pb, and Mn, emission limits in PTI 182-05C. Testing was required within three years of PTI 182-05C or by May 12, 2017. The test plan approval letter was issued on September 21, 2016 and the test protocol was received around August 18, 2016. These are in the appendices to the stack test report. The company also performed VE readings of the BOF roof monitor during the test. Their original plan was to read VE's from the baghouse stack during the testing but AQD requested that the BOF roof monitor be read instead. Company rebagged Compartment #6 prior to stack testing. According to Dave Pate, the baghouse cleans only in between desulf heats. Overall pressure drop was between 4.3 and 6.2  Total production: Between 229 and 317 tons per hour (clock hour includes downtime)  BLD readings: No alarms were experienced; trend data graphs are in the test report  Baghouse dust results: Lead 120 mg/Kg-dry and Mn 1,900 mg/Kg-dry; moisture was 0.025% of sample</p> <p>Results were as follows:  PM: 0.0007 gr/dscf (result); 0.01 gr/dscf (limit - MACT limit and state limit)  PM: 0.5 lb/hr, 7.7 lb/hr (limit)  PM: 2.5/PM10 1.0 lb/hr; 3.6 lb/hr (limit)  Mn: 0.002 lb/hr; 0.013 lb/hr (limit)  Pb: 0.0009 lb/hr; 0.0016 lb/hr (limit)  There was one VE exceedance of the 15% 3 minute average but it was reportedly not attributable to emissions from the desulf station. Note, TPU staff has not yet reviewed these results.</p>
12/20/2016	Scheduled Inspection	Compliance	FY 2017 Scheduled Inspection - LRF #1 and #2 and Degass



Activity Date	Activity Type	Compliance Status	Comments
12/09/2016	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received for the 3rd quarter 2016. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.
12/09/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2016 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO <sub>2</sub> . Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO <sub>2</sub> from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.5% (10 hours) and was reviewed by TPU staff. No further action is required at this time.
12/09/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2016 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly block opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 15 hours of downtime were reported. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
12/09/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2016 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO <sub>2</sub> . Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO <sub>2</sub> from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 0.3% (6 hours). Downtime was reviewed by TPU staff. No further action is required at this time.
12/07/2016	ROP Semi 1 Cert	Compliance	ROP Semi-Annual 1 report for Section 2 of the ROP was received on November 12, 2016. Operations are run by Edw. C. Levy Co. Two deviations reported; both were due to VE exceedances at the runway slag handling area. Exceedances were observed even though the water mist control were in place. Corrective action was to load trucks inside the BOF. This is preferable to outside loading and is sufficient corrective action at this time.
12/07/2016	ROP Other	Compliance	Ozone Control Period Summary Report for 2016 per R801(12) received. Report covers Hot Strip Mill Reheat Furnaces. Total NO <sub>x</sub> emissions were 52.3 tons for all three furnaces. Hours of operation and heat input are also included in the report. No further action is required.
11/15/2016	Other	Compliance	Surveillance
10/31/2016	Stack Test Observation	Unknown	LRF #1 and #2 stack test
10/18/2016	Other	Compliance	ROP 1 Semi annual (Jan - June 2016) and I&S MACT First Half 2016 compliance report review
10/18/2016	MACT (Part 63)	Compliance	See activity report. This report is related to the Iron and Steel MACT. It is entitled Integrated Iron and Steel Manufacturing Semi Annual compliance and Start-Up, Shut Down, and Malfunction (SSM) report - First half of 2016. It was reviewed with the semi annual ROP deviation report.

Activity Date	Activity Type	Compliance Status	Comments
10/18/2016	ROP Semi 1 Cert	Compliance	See activity report CA_A864037184
10/13/2016	Other	Unknown	Surveillance
10/04/2016	Stack Test Observation	Unknown	Desulf stack test
09/27/2016	Stack Test Observation	Unknown	Secondary baghouse and ESP stack test for 182-05C
09/22/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2016 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182 -05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.9% (19 hours) and was reviewed by TPU staff. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
09/22/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2016 report for the ESP COMS. The COMS was replaced on August 18, 2015. This was discussed between AK Steel and TPU staff. The emission limit the facility is reporting on is a 10% hourly block opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 2.5 hours of downtime were reported. No further action is required at this time.
09/22/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2016 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 1.9% (39 hours). Downtime was reviewed by TPU staff. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
09/22/2016	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.
09/22/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 22% occurred on June 30. This is also an exceedance of the 20% limit. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Root cause was incorrect primary louver setpoint. Procedure for modifying set points was changed. Letter claims all work practices and equipment setting were followed. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
09/22/2016	Other Non ROP	Non Compliance	<p>Facility submitted 2nd Quarter 2016 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed five opacity exceedances (3 of the 15% three-minute opacity and two of them were also exceedances of the 20% limit) (<math>5/72 = 67</math>) and four other incidents triggering an investigation (opacity above 10%) although they are not deviations. Work practices were followed in all instances. Exceedances were already submitted to AQD per CO 1-2006 and reviewed. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/22/2016	Other Non ROP	Compliance	Facility submitted 3rd Quarter 2016 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed five incidents triggering an investigation (opacity above 10%) but no actual violations of the 15% and 20% opacity limits on a three minute average. Work practices were followed in all instances. No further action is required at this time.
09/20/2016	Reg. Applicability Determination	Compliance	Letter related to uncontrolled back up slag skimming station
08/23/2016	ROP Other	Compliance	Annual COMS audit was performed on July 12, 2016. Monitor reportedly passed the audit. TPU reviewed the report.
08/08/2016	Other Non ROP	Compliance	Report containing results of annual silt content for blast furnace slag was received on 6/01/2016. This report is required per PTI 182-05C, Condition EUCFURNACE V.9. The percentage of silt content was used in the calculations for 182-05C and this testing is a continuing confirmation of the assumptions made. The condition does not specify a sampling methodology or specific analysis to be used. ASTM-D422 was used according to the report which is a particle size analysis method for soils. The silt content was non detect (ND). This is an acceptable result.

Activity Date	Activity Type	Compliance Status	Comments
08/08/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2016 report for the ESP COMS. The COMS was replaced on August 18, 2015. This was discussed between AK Steel and TPU staff. The emission limit the facility is reporting on is a 10% hourly block opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 2.5 hours of downtime were reported. No further action is required at this time.
08/03/2016	Scheduled Inspection	Compliance	FY2016 Target Inspection - Machine scarfer, material handling, emergency generators, and fugitive dust



Activity Date	Activity Type	Compliance Status	Comments
08/02/2016	MACT (Part 63)	Compliance	<p>Facility submitted semi annual SSM report for the HCl steel pickling line. Report states all actions were consistent with the SSM Plan. However, it is unclear whether there was a malfunction or not. AQD to follow up with facility. UPDATE: Per my conversation with Dave Pate, AK Steel, on 3/28/17, there have been no malfunctions of the pickle line scrubber.</p> <p>63.1164(c) states: Reporting malfunctions. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half.</p>
06/29/2016	Scheduled Inspection	Non Compliance	FY2016 Targeted Inspection - BOF
06/10/2016	CEM RATA	Compliance	<p>RATA results for the C furnace stoves SO2 CERMS and C furnace baghouse SO2 CERMS were received on June 11, 2015. RATA was performed on April 30, 2015. Test plan approval letter was issued on April 2, 2015. TPU staff, Mark Dziadosz, reviewed the test results and issued a letter to AK Steel on August 31, 2015, "approving" the RATA results.</p>
06/01/2016	Complaint Investigation	Compliance	Complaint investigation

Activity Date	Activity Type	Compliance Status	Comments
05/31/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 21% occurred on May 16 (this is also an exceedance of the 20% 3 minute average limit). Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Exceedance occurred while blowing a heat on A vessel. Emissions from the lance hole; increased draft to the ESP. Work practices were followed. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.
05/25/2016	MAERS	Compliance	AK Steel MAERS report submitted on time. ROP certification was postmarked March 15, 2016. Completeness check revealed zero errors. Many emissions increases from the prior year correlate to increases in natural gas throughput. Also, VOC emission factor for all natural gas combustion was changed to the MAERS factor. New this year – reporting lead Changes from prior year are explained in attachments Beaching emissions changed due to company beaching much less Only one stack test event occurred in 2015 for the new machine scarf. All other emission factors based on stack testing were changed to use the most recent stack test result (as opposed to an average of multiple tests as done in the 2014 MAERS).
05/17/2016	Complaint Investigation	Compliance	Complaint investigation - PEAS 5/17/16
05/11/2016	Other	Compliance	Surveillance

Activity Date	Activity Type	Compliance Status	Comments
05/10/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 16% occurred on Saturday, April 23. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Exceedance occurred during hot metal charge. Emissions from around the shroud plate; extra packing applied and set point for louver position temporarily increased. Work practices were followed. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.
04/26/2016	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received for the 1st quarter 2016. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.
04/18/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2016 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average . CEMS downtime was reported as 0.2% (5 hours). Downtime was reviewed by TPU staff. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
04/18/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2016 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO <sub>2</sub> . Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO <sub>2</sub> from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.1% (5 hours) and was reviewed by TPU staff. No further action is required at this time.
04/11/2016	Other Non ROP	Non Compliance	Facility submitted 1st Quarter 2016 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed four opacity exceedances (2 of the 15% three-minute opacity which were also 2 exceedances of the 20% limit) (4/72 = 6%) and eight other incidents triggering an investigation (opacity above 10%) although they are not deviations. Exceedances were already submitted to AQD per CO 1-2006 and reviewed. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
04/06/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 21% occurred on March 21, 2016 (this is also an exceedance of the 20% opacity limit). Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Root cause was slopping and work practice procedures were not followed to minimize the event (which is another deviation). Retraining and updating of procedures was conducted. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.
03/17/2016	Malfunction Abatement Plan	Compliance	PTI 70-13 was issued to Edw. C. Levy Company, Section 2 of AK Steel's ROP, for a desulfurization slag watering station. An updated O&M plan was submitted on 3/17/16 with a revision date of 3/11/16. Compliance status was chosen based on the submission of the plan. Elements of the plan will be fully reviewed during the next inspection.

Activity Date	Activity Type	Compliance Status	Comments
03/14/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 22% occurred on February 1. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Root cause was holes in the Y section ductwork from B Vessel. Holes were repaired. Letter claims all work practices and equipment setting were followed. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.

03/11/2016	ROP SEMI 2 CERT	Compliance	<p>Review of Semi Annual Title V report for July – December 2015 and Integrated Iron and Steel MACT for AK Steel (received January 25, 2016).</p> <p>3 deviations were reported. All reported deviations were also Iron and Steel MACT (Subpart FFFFF) deviations. As such, this review covers both reports.</p> <p>#1 - Deviation related to an opacity exceedance at the BOF roof monitor. One exceedance was observed at 21%. Exceedance was due to slopping from B vessel. Corrective actions were reportedly taken during the event. No root cause was identified. However, facility reads 6 heats per week for a total of 72 heats per semiannual period. Facility reads the roof monitor much more frequently than US Steel on a semiannual basis (72 vs. 12) and has less exceedances. Also unique to AK Steel is that the facility also has appropriate operational practices in place to investigate and identify and correct issues in a timely manner and submits reports to AQD. Some of this is detailed in PTI 182-05C and AQD Consent Order 6-2006. No further action is necessary at this time.</p> <p>#2 – B vessel tap damper deviated from required position per the O&amp;M plan required by MACT 5F for one 15-minute period. Duration of deviation was 15 minutes which is a very small fraction of the total hours in the period (4344). A root cause was identified and corrected related to a loose pin on the beck drive. Also, the deviation was an isolated incident and did not recur throughout the semiannual period. As such, facility is substantively in compliance.</p> <p>#3 – C blast furnace baghouse inlet pressure did not meet required minimum set point specified in the O&amp;M plan required by MACT 5F for one 15-minute period. Duration of the deviation was 15 minutes which is a very</p>
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03/11/2016	ROP SEMI 2 CERT	Compliance	<p>small fraction of the total operation time of the secondary baghouse. Cause was a baghouse compartment went off line without being isolated. Corrective action was taken. This was an isolated incident and did not recur throughout the semiannual period. As such, facility is substantively in compliance.</p> <p>All other information required by the Iron and Steel MACT was contained in the January 25, 2016 semiannual report. Of note, it was reported that the C BF, BOF Secondary BH, BOF ESP, BOF Desulf BH, NO 1 LRF BH and No 2 LRF and BH SSM plans were revised November 5, 2015.</p>
03/11/2016	ROP Annual Cert	Compliance	<p>See activity report for the two semi annual periods as no additional deviations appear to have been identified in the annual review. Note, the deviation report does not include deviations associated with PTI 18-205C, 8-08, and 8-08B, as those permits have not yet been incorporated into the ROP. Compliance status was chosen based solely on the information contained in the deviation report.</p>
03/11/2016	MACT (Part 63)	Compliance	<p>See activity report. This report is related to the Iron and Steel MACT. It is entitled Integrated Iron and Steel Manufacturing Semi Annual compliance and Start-Up, Shut Down, and Malfunction (SSM) report - Second half of 2015. It was reviewed with the semi annual ROP deviation report.</p>
03/09/2016	Other	Compliance	Surveillance
03/07/2016	ROP Semi 1 Cert	Compliance	<p>ROP Semi-Annual 1 report for Section 2 of the ROP was received on November 18, 2015. Operations are run by Edw. C. Levy Co. One deviation reported: one VE exceedance at the runway slag handling area. Cause was operator error; operator was retrained. At this time, corrective action appears sufficient. no further action is required.</p>



Activity Date	Activity Type	Compliance Status	Comments
03/07/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2015 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average . CEMS downtime was reported as 0.1% (3 hours). Downtime was reviewed by TPU staff. No further action is required at this time.
03/07/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2015 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.5% (10 hours) and was reviewed by TPU staff. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
03/07/2016	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2015 report for the ESP COMS. The COMS was replaced on August 18, 2015. This was discussed between AK Steel and TPU staff. The emission limit the facility is reporting on is a 10% hourly block opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 3 hours of downtime were reported. No further action is required at this time.
02/26/2016	CO/CJ	Compliance	A SEP completion report was required to be submitted by AK Steel per paragraph 32 of CD Civil Action No. 15-cv-11804. This report was submitted to EPA and AQD. AQD informed EPA that MDEQ is satisfied with the report. See attached email and report.

02/17/2016	MACT (Part 63)	Unknown	<p>On 6/23/15, facility submitted a "follow up" to the Boiler MACT initial notification dated May 31, 2013. In the June 23, 2015 letter, the facility claims that it is now an area source of HAPs. A spreadsheet with PTE calculations was attached. The calculated PTE is 9.23 tons of aggregate HAP's with Mn being 2.54 tons, HCl being 2.4 tons, and Hexane being 2.17 tons. Hexane emissions are from natural gas combustion. AQD reviewed the spreadsheet and asked for more information in several areas. See attached emails. AQD's main concern was the accuracy of the PTE for emission units that emit hexane, Mn, and Pb, and do not have legally enforceable limits on the emissions or operational or production limits. A meeting was held with the facility on February 17, 2016 in which this spreadsheet was discussed (among other items). The facility's attorney, Mr. Steve Wesloh (of Frost, Brown) stated that the company submitted the PTE demonstration as a courtesy to AQD and "was not looking for an approval" from AQD. Mr. Dave Miracle, Corp. Env. Manager, Mr. Jim Earl and Mr. Dave Pate from the Dearborn Works plant were in attendance. AQD explained that a review was being conducted in an attempt to avoid future issues if there was a disagreement about the PTE calculations. Additional information was received on March 16, 2016 after the meeting (see attached). The information was pertaining to the worst case emissions of Mn. Facility provided information that they have 40 test runs of Mn at LRF#1 and #2 and they were using the worst case test run in the PTE. Given the extensive amount of data and that the Mn PTE for LFR #1 and #2 combined is about 1 ton, even applying a safety factor to the lb/hr EF's of 100% would still result in the total Mn PTE being below 10 tons. Hexane PTE was not reviewed in depth. At this time, based on the current information that was presented and the operations at the time of the PTE</p>
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02/17/2016	MACT (Part 63)	Unknown	demonstration, no further action is required.
02/03/2016	ROP Other	Compliance	Facility reported one deviation from the 20%, 3 minute average opacity limit when loading a truck. Dust boss fan was blowing particulate out of the truck. Truck repositioned. No further action required at this time. AQD will monitor to ensure it is not a recurring problem.
01/27/2016	Other Non ROP	Non Compliance	Facility submitted 4th Quarter 2015 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed one exceedance of the 15% three-minute opacity limit on October 15, 2015 ( $1/72 = 1.3\%$ ). Exceedance was already submitted to AQD per CO 1-2006 and reviewed. Non compliance was chosen as facility violated the opacity limit. No root cause was identified. Note that this is a "snapshot" in time. A future VN may be warranted if violations are ongoing and/or inadequately addressed a longer time period (6 month - 1 year).
01/27/2016	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.

Activity Date	Activity Type	Compliance Status	Comments
01/25/2016	MACT (Part 63)	Compliance	<p>Facility submitted semi annual SSM report for the HCl steel pickling line. Report states that no malfunction occurred that could have caused an emission limit exceedance. It is unclear whether there was a malfunction or not. AQD to follow with facility.</p> <p>UPDATE: Per my conversation with Dave Pate, AK Steel, on 3/28/17, there have been no malfunctions of the pickle line scrubber.</p> <p>63.1164(c) states: Reporting malfunctions. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half.</p>
01/19/2016	Other Non ROP	Compliance	<p>Report containing results of annual silt content for blast furnace slag was received on 7/15/2015. This report is required per PTI 182-05C, Condition EUCFURNACE V.9. The condition does not specify a sampling methodology or specific analysis to be used. ASTM-D422 was used according to the report which is a particle size analysis method for soils. The silt content was non detect (ND).</p>

Activity Date	Activity Type	Compliance Status	Comments
01/19/2016	Other Non ROP	Compliance	Ozone Control Period Summary Report for 2015 per R801(12) received. Report covers Hot Strip Mill Reheat Furnaces. Total NOx emissions were 77.1 tons for all three furnaces (22.4 tons for No. 1, 27.2 tons for No. 2, and 27.5 tons for No. 3). Hours of operation and heat input are also included in the report. No further action is required.
01/19/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 16% occurred on September 14. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to failure to follow work practices. Corrective action was to review work practices with all vessel operators. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
01/19/2016	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 16% occurred on August 26. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. No root cause could be identified. Letter claims all work practices and equipment setting were followed. Non compliance was chosen as facility violated the opacity limit. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.
01/14/2016	Stack Test	Compliance	Stack test results for the machine scarfer were received on December 9, 2015. Testing for PM, PM10, PM2.5 and visible emissions was conducted on October 27, 2015. Test protocol was received on September 25 and approved on October 12. On January 6, 2016 I received the attached memo from TPU staff, Jeremy Howe, with the results of the emissions test review. TPU staff calculations were in alignment with the test report. PM - .001 gr/dscf; permit limit 0.003; PM10/2.5 - .001 gr/dscf; permit limit 0.005, PM10/2.5 - 1 pph, permit limit 4.52 pph. Zero VE's from the baghouse stack were observed. Hourly production rate was 60-84 tph. This is below the 96 tons.hr maximum rate that was provided in the PTI 20-14 application but in the range of normal "maximum" routine operating conditions. Overall baghouse pressure drop for each run was 11.5 to 13. This is within the permitted range.

Activity Date	Activity Type	Compliance Status	Comments
01/07/2016	CO/CJ	Compliance	An annual ESP inspection report is required to be submitted by AK Steel per paragraph 21 of CD Civil Action No. 15-cv-11804. This report was submitted to EPA and AQD on 1/7/2016. Compliance status was chosen as it relates to the submission of the report to fulfill this requirement.
01/06/2016	CO/CJ	Compliance	An Environmental Management Systems manual is required to be submitted by AK Steel per paragraph 12 of CD Civil Action No. 15-cv-11804. This manual was submitted to AQD on 1/6/2016 via Neil Gordon, AG. Compliance status was chosen as it relates to the submission of the manual to fulfill this requirement. Note, the manual is labelled as CBI.
12/30/2015	Other	Compliance	Surveillance
12/23/2015	CO/CJ	Compliance	A letter was received on 12/23/15 from AK Steel. The letter states that hand scarfing as identified in the Consent Order 6-2006 has been discontinued.
12/08/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2015 report for the C Blast Furnace baghouse CEMS. There were no reported excess emissions. CEMS is used to measure SO <sub>2</sub> . Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO <sub>2</sub> from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 1.9% (36.3 hours) and was reviewed by TPU staff.



Activity Date	Activity Type	Compliance Status	Comments
12/08/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2015 report for the ESP COMS. The COMS was replaced on August 18, 2015. This was discussed between AK Steel and TPU staff. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates my concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 1 hour of downtime was reported.
12/08/2015	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.

Activity Date	Activity Type	Compliance Status	Comments
11/06/2015	Other Non ROP	Non Compliance	<p>Facility submitted 3rd Quarter 2015 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed four exceedances of the 15% three-minute opacity limit (<math>4/72 = 6\%</math>) and two other incidents triggering an investigation (opacity above 10%) although they are not deviations. Exceedances were already submitted to AQD per CO 1-2006 and reviewed. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.</p>
11/03/2015	Excess Emissions (CEM)	Compliance	<p>Facility submitted the 2nd quarter 2015 report for the C Blast Furnace baghouse CEMS. No reported excess emissions. CEMS is used to measure SO<sub>2</sub>. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO<sub>2</sub> from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 2.6% (54 hours) and was reviewed by TPU staff.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/03/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2015 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 4.5% (92.5 hours) and was reviewed by TPU staff.
11/03/2015	MACT (Part 63)	Compliance	See activity report CA_A864032024. This report is related to the Iron and Steel MACT. It is entitled Integrated Iron and Steel Manufacturing Semi Annual compliance and Start-Up, Shut Down, and Malfunction (SSM) report - First half of 2015. It was reviewed with the semi annual ROP deviation report which was received on September 15, 2015.
11/03/2015	ROP Semi 1 Cert	Compliance	See activity report CA_A864032024
11/03/2015	Excess Emissions (CEM)	Non Compliance	Facility submitted the 3rd quarter 2015 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. However, CEMS downtime was reported as 7.4% (114.6 hours). TPU staff issued a violation notice based on the unacceptable downtime. AQD will follow up with facility to determine how they are accounting for emissions during downtime.
11/03/2015	Other	Compliance	Review of Title V deviation report for January - June 2015. Note: I&S MACT (5F) compliance report submitted separately but reviewed with this report as it contains the same deviation information.

Activity Date	Activity Type	Compliance Status	Comments
10/01/2015	CO/CJ	Non Compliance	<p>Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor of 16% occurred on August 26. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to a reaction in the vessel of unknown cause; however settings for draft on the capture system were to be improved via a logic change. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p> <p>*****</p> <p>UPDATAE: Facility sent a follow up letter, dated February 2, 2016 stating that the following repairs have been conducted which have improved the draft the moment the capture system is placed in on line mode: install new primary louvers in B and A vessels and replace ESP No. 3 ID fan. Due to these repairs, the logic change proposed in the prior letter is not longer needed and will not be implemented.</p>
10/01/2015	ROP Other	Compliance	<p>AQD is unsure of the purpose of this report as it is listed as a Quarterly Deviation Report for Levy Company operations under Section 2 of the AK Steel ROP. Report lists one exceedance of the fugitive dust regulations, 20% opacity on a 3 minute average, during the handling of runway slag. Corrective actions are operator retraining. At this time, this appears to be sufficient.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/01/2015	CO/CJ	Non Compliance	<p>Letter received reporting one exceedance of the 15% and 20% 3-minute average opacity limit for the BOF roof monitor at 21% occurred on July 9. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to a reaction in B vessel causing slopping but no cause for the reaction could be identified. Blow rate was deduced and heat was subsequently aborted which stopped the emissions. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/01/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2015 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the recently issued DOJ Consent Decree. This alleviates my concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 3 hours of downtime were reported
10/01/2015	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.

Activity Date	Activity Type	Compliance Status	Comments
10/01/2015	CO/CJ	Non Compliance	<p>Letter received reporting two exceedances of the 15% and 20% 3-minute average opacity limit for the BOF roof monitor at 25% and 74% occurred on June 15.</p> <p>Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to a damaged steam ring on A vessel. Non compliance was chosen as facility violated the opacity limit. A vessel was shut down for 9.5 hours to repair the steam ring. The hood area around the steam ring was repacked with insulating wool. Draft set point of the ESP was increased during oxygen blow. At this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p>
10/01/2015	CEM RATA	Compliance	<p>RATA results for the C furnace stoves SO2 CERMS and C furnace baghouse SO2 CERMS were received on June 11,2015. RATA was performed on April 30, 2015. Test plan approval letter was issued on April 2, 2015. TPU staff, Mark Dziadosz, reviewed the test results and issued a letter to AK Steel on August 31,2015, "approving" the RATA results.</p>

Activity Date	Activity Type	Compliance Status	Comments
10/01/2015	Other Non ROP	Non Compliance	<p>Facility submitted 2nd Quarter 2015 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed three exceedances of the 15% three-minute opacity limit (<math>3/72 = 4\%</math>) and three other incidents triggering an investigation (opacity above 10%) although they are not deviations. Exceedances were already submitted to AQD per CO 1-2006 and reviewed. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.</p>
10/01/2015	MACT (Part 63)	Compliance	<p>Facility submitted semi annual SSM report for the HCI steel pickling line. Company certified that all actions were consistent with the SSM plan.</p>
09/29/2015	ROP Other	Compliance	<p>Facility replaced the ESP COMS. The certification of the new COMS in accordance with 40 CFR Part 60 Appendix B, PS-1 was performed on August 6 and results were submitted on 9/29/15. COMS passed the certification. Monitor was placed in to service on August 18. Report was reviewed by Mr. Tom Maza, TPU staff.</p>



Activity Date	Activity Type	Compliance Status	Comments
09/29/2015	Malfunction Abatement Plan	Compliance	Revised MAPs submitted on 9/29/2015 for the C Blast Furnace stoves, PLTCM BH and Fume Exhaust. These will be fully reviewed upon the next inspection of this equipment. At this time, they are approved within 90 days of submittal per the permit language unless told otherwise. AQD has the opportunity to require amendments to the MAP if it is determined to be inadequate.
09/02/2015	Scheduled Inspection	Compliance	FY2015 Targeted Inspection - BOF capture and Pickle Line
08/26/2015	Scheduled Inspection	Compliance	FY 2015 Targeted Inspection - C blast furnace
07/16/2015	Other	Unknown	Surveillance
07/07/2015	Other Non ROP	Non Compliance	Facility submitted 1st Quarter 2015 report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C and the permit requires three times per week readings of the BOF roof monitor at least 2 hours and 2 complete heats per reading. This equates to readings of 6 heats/week, 24 heats per month, and 72 heats per quarter. Report showed two exceedances of the 15% three-minute opacity limit ( $2/72 = 3\%$ of total heats read) and four other incidents triggering an investigation (opacity above 10%) although they are not deviations. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.
07/07/2015	ROP SEMI 2 CERT	Compliance	Semi annual 2 2014 deviation report for Levy operations that are Section 2 of the AK Steel ROP. No deviations reported.

Activity Date	Activity Type	Compliance Status	Comments
07/07/2015	ROP Annual Cert	Compliance	Annual deviation report for Levy operations that are Section 2 of the AK Steel ROP. Two deviations reported; one for excess fugitive emissions and one for missed VE readings. Procedures have been updated and a mister has been installed in the runway slag loading area. At this time, these corrective actions appear sufficient.
06/29/2015	NSPS (Part 60)	Non Compliance	NSPS Dc initial notification received for three 12.4MMBTU/hr hot water heaters in operation at the galvanizing line. This report is late as the hot water heaters commenced operation in December 2011. A notification was due within 15 days of initial startup. Enforcement discretion is being used as notification has been received.
06/29/2015	Other Non ROP	Compliance	PTI 20-14 was issued on September 10, 2014 for the automatic machine scarfing. Stack testing is required within 180 days of commencement of trial operation. A letter was received from AK Steel on 5/26/15 stating that trial operation started on 5/4/2015. As such, stack testing is due by 11/4/2015.

Activity Date	Activity Type	Compliance Status	Comments
06/29/2015	CO/CJ	Non Compliance	Letter received reporting one exceedance of the 20% 3-minute average opacity limit for the BOF roof monitor at 23% occurred on June 1. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to contamination in the scrap as all other operating modes and work practices were reviewed and appeared to be in normal. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.
05/29/2015	MAERS	Compliance	Revised MAERS Submitted  An updated MAERS report was submitted on May 28 to include emergency generators and PCI silo. Additionally, facility discovered an error in natural gas throughput for the annealing furnaces which was corrected. This did not make a significant difference in the overall emissions.
05/26/2015	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.

Activity Date	Activity Type	Compliance Status	Comments
05/04/2015	Stack Test	Compliance	<p>Stack testing of the pickle line scrubber for HCl emissions was performed on March 3 and 5. Results were received on May 4, 2015. The test protocol was received on December 23, 2014 and was approved February 5, 2015. All are attached to this report. This is a Steel Pickling MACT (CCC) required test. Power problems delayed the test in between runs but TPU allowed completion beyond the 36 hour window (see attached emails). HCl emissions were 2.63 ppmvd based on a three run average; the permit limit is 6 ppmvd. Recirculation and makeup water flow rates were re-established as allowed by the MACT. The new minimum values are 34 m3/hr for the recirculation rate and 5.3 m3/hr for the makeup water flow rate. Notification of compliance status was submitted with the test results. Test report did not undergo TPU review.</p>
05/04/2015	MACT (Part 63)	Compliance	Notification of compliance status submitted with the Steel Pickling MACT (CCC) test results.

Activity Date	Activity Type	Compliance Status	Comments
05/01/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2015 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). While AQD has concerns over facility's interpretation of the MACT language and what constitutes a deviation, a process of investigating every 6 minute average above 20% has been initiated and will continue in the pending Consent Decree. This alleviates my concerns that opacity spikes could be ignored and are not readily apparent in the reporting of a 1 hour "block average". As such, status of compliance was chosen. Downtime was reviewed by TPU staff. 4.9 hours of downtime were reported which represent two calibration/audit events.
05/01/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2015 report for the C Blast Furnace baghouse CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 1.3% (25.5 hour) and was reviewed by TPU staff. No specific reasons given.

Activity Date	Activity Type	Compliance Status	Comments
05/01/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2015 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average . CEMS downtime was reported as 1.4% (26.5 hours) and was reviewed by TPU staff. No reason given for monitor downtime.

03/25/2015	MAERS	Compliance	<p>MAERS report submitted on time. Many emissions increases from the prior year correlate to increases in natural gas throughput. Also, VOC changes are related to a change in the AP42 factor. Additional information was provided (attached) which includes the basis for each emission factor. AQD staff did not cross check every emission factor with the stack test reports; however, I reviewed the factors to determine what changes were made and why. In general, testing at the ESP stack, BOF secondary baghouse, and C BF casthouse baghouse was performed in 2014 which resulted in changes to emission factors. An SO2 CEMS was installed in the C BF baghouse stack which is new this reporting year. Beaching emissions changed due to company beaching approximately half of the metal as the prior year. Control efficiencies were reviewed; all of the emission factors from stack testing are controlled. Company used building/roof control efficiencies for fugitive emissions which were accepted in the latest PTI 182-05C. Note, this facility has performed a lot of stack testing over the past several years; sometimes multiple tests on the same emission until within the same year. Some of the emission factors (mostly for metals and PM) are the average of several testing events. While AQD has accepted this approach in the past for MAERS reporting, it is typically not the accepted approach for compliance demonstrations. One result is usually used until a new test replaces the prior one. However, it does not appear to that it would make a difference between compliance and non compliance at this time. I will discuss with the facility.</p> <p>*****</p> <p>Facility refused to update emission factors mid year if a stack test was performed within the MAERS reporting year. They have decided to apply the emission factors retroactively. At</p>
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03/25/2015	MAERS	Compliance	this time, I have allowed this calculation method as it does not affect compliance and I requested that the facility document the reasons for why the emission factor should be retroactively applied. An updated MAERS report was submitted on May 28 to include emergency generators and PCI silo. Additionally, facility discovered an error in natural gas throughput for the annealing furnaces which was corrected. This did not make a significant difference in the overall emissions.
03/16/2015	MACT (Part 63)	Non Compliance	Deviations from the Integrated Iron and Steel MACT (5F) were reported in the semi annual Title V deviation report. Some of the deviations are related to violations that are part of an ongoing enforcement action between AQD, EPA, and AK Steel (formerly Severstal NA). As such, non compliance was chosen until the enforcement action is resolved.
03/16/2015	ROP Annual Cert	Non Compliance	See activity report A864028821
03/16/2015	ROP SEMI 2 CERT	Non Compliance	12 deviations were reported for the semi annual period from July - December 2014. Some of the deviations are related to violations that are part of an ongoing enforcement action between AQD, EPA, and AK Steel (formerly Severstal NA). As such, non compliance was chosen. The remaining deviations will be monitored to see if they are repetitive problems and/or whether corrective actions taken were sufficient.
03/16/2015	Other	Non Compliance	Review of Title V deviation report for Jan - Dec 2014
03/11/2015	Other	Compliance	Surveillance



Activity Date	Activity Type	Compliance Status	Comments
03/06/2015	CO/CJ	Non Compliance	<p>Letter received reporting two exceedances of the 15% 3-minute average opacity limit for the BOF roof monitor from PTI 182-05C on 1/28/15. 3-minute averages of 22% and 16% were observed. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to a work practice not being followed, hole in ductwork, and blown fuse in B steam ring (this also caused an exceedance in January). Corrective actions were to close the hole, installation of a pressure switch to id a blown fuse during the February 11 shutdown and retraining of operators. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p>
03/05/2015	Other Non ROP	Compliance	<p>Report containing results of silt content for 4 quarterly slag samples was received on 2/13/2015. This report is required per PTI 182-05C, Condition EUCFURNACE V.9. The condition does not specify a sampling methodology or specific analysis to be used. ASTM-D422 was used according to the cover letter which is a particle size analysis method for soils. The silt content was non detect (ND) for all samples.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/19/2015	Excess Emissions (CEM)	Unknown	<p>Facility submitted the 4th quarter 2014 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). At this time, AQD needs clarification from AK Steel on their interpretation of the MACT opacity deviation language. Letter also states that the limit is 10% 1 hour "block average" although AQD does not see that language in the MACT. AQD and prior owner, Severstal, were not in agreement. As such, compliance status of pending was chosen. Downtime was reviewed by TPU staff. 6.43 hours of downtime were reported attributable to QA and a blown fuse.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/19/2015	Stack Test	Compliance	<p>Report, cover letter dated December 23, 2014, for NOx and CO emissions testing performed at the BOF ESP stack on October 28-29, 2014. Testing was performed by Environmental Quality Management, Inc. (EQ), and observed by Jon Lamb (AQD-Field) and Tom Maza (AQD-TPU). Testing was required per PTI No. 182-05C. Results show a NOx emission rate of 25.4 lb/hr and CO emission rate of 2,286 lb/hr, below the permitted rates of 52.9 lb/hr and 7,048 lb/hr, respectively. However, these rates were calculated on the assumption that 50% of the emissions were during "oxygen blow" and the remaining 50% were during "non blow" status. TPU reviewed this report and calculated the actual blow vs. non blow time periods and applied the appropriate exhaust gas flow rates during those times. The emissions were then more accurately recalculated in a memo from Nathan Hude received on 2/4/2015. Mr. Hude calculated a NOx lb/hr of 24.6 and CO lb/hr of 2401. Regardless, these results are also below the permit limits.</p>

02/19/2015	Stack Test	Compliance	<p>Report, dated Dec. 29, 2014, was received for particulate matter (PM) emission rate testing performed at the BOF Secondary Baghouse on December 2 through December 5, 2014. Testing was performed by BTEC Inc. and observed by Tom Maza, AQD-TPU and Nathan Hude, AQD-TPU. Results show a 6 run average PM emission rates of 0.00031 gr/dscf, below the limits of 0.003 gr/dscf set in PTI No. 182 -05C and 0.01 set in the Iron and Steel MACT (Part 63, Subpart FFFFF). Method 9 VE readings were also performed, with the highest 3-minute average being 3%, below the limit of 20%, 3-minute average. The purpose of the test was to "reestablish" the Integrated Iron and Steel MACT operating parameters for the capture system (such as damper positions and fan speeds) which were supposed to be set in the initial performance test (and remain unchanged unless accompanied by a subsequent test showing compliance). It appears that parameters have fluctuated over the years and retests have not been performed. Facility was cited for this in an Oct 27, 2014 VN. It is unclear from the information that was submitted whether three or four fans were in operation during each run. The operating parameters differ given the situation. Additional information is needed from the facility. A MACT notification of compliance and updated O&amp;M plan were also received.</p> <p>*****</p> <p>Update: 6 runs were performed (3 for 4 fan operation; 3 for 3 fan operation). Runs 1, 2 and 4 were with 4 fans. Runs 3,5 and 6 were with 3 fans. This information was provided by Jim Earl. Run 2 is an outlier as it is an order of magnitude lower than the other 5 runs. There was a crease in the filter paper during this run according to the TPU report. However, averaging Runs 1 and 4 (for 4 fan operation) still results in emissions an order of magnitude lower than the emission limits (0.00023 compared to 0.003</p>
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02/19/2015	Stack Test	Compliance	and .01). For 3 fan operation, averaging runs 3,5, and 6 results in .00045 gr/dscf which is also below the emission limits.
02/19/2015	Stack Test	Compliance	<p>Report, dated Dec. 29, 2014, for particulate matter (PM) emission rate testing performed at the C Blast Furnace Baghouse on Dec. 9 and 10, 2014. Testing was performed by BTEC Inc., and observed by Jon Lamb (AQD-Detroit Office), Nathan Hude (AQD-TPU), and Tom Maza (AQD-TPU). The purpose of the test was to "reestablish" the Integrated Iron and Steel MACT operating parameters for the capture system (such as inlet pressure and damper positions) which were supposed to be set in the initial performance test (and remain unchanged unless accompanied by a subsequent test showing compliance). It appears that parameters have fluctuated over the years and retests have not been performed. Facility was cited for this in an Oct 27, 2014 VN. Results show a PM emission rate of 0.00009 gr/dscf (.0001 gr/dscf as calculated by TPU in the 1/22/15 memo from Nathan Hude), below the limits of 0.003 gr/dscf set in PTI No. 182-05C and 0.01 gr/dscf set in the Integrated Iron and Steel MACT (Part 63, Subpart FFFFF). Method 9 VE readings were also performed, 30, 6 minute average blocks as required in the MACT, with highs of 3%, 6-minute (East Roof Monitor) and 4%, 6-minute (North Roof Monitor), both below the limit of 20%, 6-minute average. TPU reviewed the test and a memo was received on 1/27/15. Note: 5 runs were performed; all runs were below the PM gr/dscf limits. A review of the process data indicates a variety of operating modes; testing solely during east tapping, alternating casts, and overlapping casts. Testing was performed over integral casts as required by the MACT. A MACT notification of compliance and updated O&amp;M plan were also received.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/10/2015	Other Non ROP	Non Compliance	<p>Facility submitted 4th Quarter report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C. Report showed four exceedance of the 15% three-minute opacity limit and four incidents triggering an investigation (opacity above 10%) although they are not deviations. I also reviewed the VE sheets to ensure the facility is calculating opacity in the manner that is acceptable to AQD (i.e. starting the 3 minute average anywhere in the readings; it does not have to start at reading "zero". Also, readings are not "blocked off" every three minutes if there is no opacity violation for that block and an average of 15.5% or above is considered non compliance). Non compliance was chosen as facility violated the opacity limit.</p> <p>However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. I contact the facility to request the slag splashing corrective action procedure referenced in the report. Facility responded that after a thorough investigation, they could not identify any abnormal conditions that were related to this event and at this time, it is considered a "one time" incident. Also, I inquired about the difference between iron "dumping" and "beaching". Apparently, dumping occurs inside of the BOF at the south end of the facility. Beaching is outside and is no longer going to occur and has not occurred since the August 2014 incident. See complaint files for more information. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/09/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2014 report for the C Blast Furnace baghouse CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.05% (1 hour) and was reviewed by TPU staff. No reasons given for monitor downtime.
02/09/2015	CO/CJ	Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. Facility refers to this as the "PM-10 exception report." A report is only required if a condition of the SIP CO is not met. Report states that there are no exceptions to report.
02/09/2015	Excess Emissions (CEM)	Compliance	Facility submitted the 4th quarter 2014 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 0.1% (3 hours) and was reviewed by TPU staff. No reason given for monitor downtime.
02/09/2015	Complaint Investigation	Compliance	Fire at AK Steel on 2/9/2015
02/03/2015	Complaint Investigation	Compliance	Complaint investigation

Activity Date	Activity Type	Compliance Status	Comments
01/22/2015	CO/CJ	Non Compliance	<p>Letter received reporting one exceedance of the 15% 3-minute average opacity limit for the BOF roof monitor from PTI 182-05C on 12/30/14. A 3-minute average reading of 18% was observed. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Emissions were attributed to a blown fuse in B steam ring and gaps in the boiler doors. Corrective actions taken include pending installation of a pressure switch to id a blown fuse and sealing of boiler door gaps and future quarterly checks. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations of the same root cause are on going and/or inadequately addressed.</p>
01/09/2015	MACT (Part 63)	Compliance	<p>Notification of compliance with the Integrated Iron and Steel MACT (Part 63, Subpart FFFFF) for the C Blast Furnace Baghouse. The notification appeared to contain all of the information required by 63.9 (h) and 63.7824. Submittal also included an updated Operation &amp; Maintenance Plan for the C Blast Furnace Casthouse Baghouse and Capture System. O&amp;M plan was updated to include operating parameters for the baghouse inlet pressure and damper positions based on December 2014 stack testing.</p>
01/09/2015	MACT (Part 63)	Compliance	<p>Notification of compliance with the Integrated Iron and Steel MACT (Part 63, Subpart FFFFF), based on particulate testing performed Dec. 2 through 5, 2014, at the BOF Secondary Baghouse.</p>



Activity Date	Activity Type	Compliance Status	Comments
12/12/2014	ROP Semi 1 Cert	Compliance	ROP Semi-Annual 1 report for Section 2 of the ROP. Operations are run by Edw. C. Levy Co. One deviation reported: facility has changed how the runway slag is watered and has changed the location of where readings are performed, which differs from the permit. No violation will be cited.
11/24/2014	Other Non ROP	Compliance	Ozone Control Period Summary Report for 2014 per R801(12) received. Report covers Hot Strip Mill Reheat Furnaces. Total NOx emissions were 84.9 tons for all three furnaces (30.0 tons for No. 1, 22.3 tons for No. 2, and 32.6 tons for No. 3). Hours of operation and heat input are also included in the report. No further action is required.
11/13/2014	Malfunction Abatement Plan	Compliance	Severstal submitted the MAP for EUCFURNACE, as required by PTI No. 182-05C, Section III.3. AQD staff did not review the plan; plan is approved by default after 90 days. However, per PTI 182-05C, AQD has the ability to request an amended plan if necessary.

Activity Date	Activity Type	Compliance Status	Comments
11/13/2014	CO/CJ	Non Compliance	Letter received reporting a two exceedances of the 20% 3-minute average opacity limit for the BOF roof monitor on 10/23/14. 3-minute average readings of 21% and 27% were observed. Readings are required per CO AQD No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. No root cause was determined during the first exceedance; the second was attributed to an "unusual reaction" during slag splashing and slagging on A Vessel. AK Steel is developing a corrective action plan to prevent recurrence. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.
11/13/2014	CEM RATA	Compliance	Quarterly Audit for the BOF ESP Stack COMS, performed by Teledyne on Oct. 24, 2014. Audit was reviewed by AQD-TPU.
11/12/2014	Other Non ROP	Compliance	Results of annual ESP stack COMS performance audit received. The audit report was reviewed by TPU staff. The COMS passed the audit.

Activity Date	Activity Type	Compliance Status	Comments
11/10/2014	MACT (Part 63)	Non Compliance	Semi Annual Integrated Iron and Steel MACT (5F) compliance report for the Jan - June 2014 reporting period, received with the Semi-Annual ROP certification. No SSM events exceeding a MACT standard were reported. MACT deviations from operations, maintenance, and recordkeeping for the Blast Furnace, BOF, and LRF were reported in the semi annual Title V report. Facility did not report any deviations from the 10% hourly average opacity standard for the ESP; however, AQD does not agree with facility interpretation of MACT. There is an open EPA/DEQ enforcement action regarding the ESP which should assist in resolving this issue. A violation notice was issued on 4/15/14 which contains violations related to the MACT. The number of deviations is taken from the Semi-Annual ROP Certification covering the same time period. Based on the deviations reported, AK Steel was issued a Violation Notice on October 27, 2014.

Activity Date	Activity Type	Compliance Status	Comments
11/10/2014	MACT (Part 63)	Non Compliance	<p>On 10/2/14, at 5:30 pm, AQD Detroit office (Mina McLemore) received verbal notification of an emission event that occurred at 6:45 am on 10/1/14. Jim Earl indicates that this no emission limits were violated. However, the MACT SSM procedures were not followed and the procedures also need to be modified. He will send a 7 day follow-up report as required by 40 CFR 63.10.</p> <p>The follow-up letter was received on October 13, 2014. In the letter, AK Steel states that they did not violate the 10% hourly standard, based on their interpretation of the MACT even though they did exceed 10% opacity for three hours. AQD disagrees with AK Steel's interpretation. AK Steel also stated that their internal procedures did not fully incorporate the MACT SSMP, and AK Steel will revise the SSMP and their procedures. AK Steel was issued a Violation Notice on October 27, 2014, for various violations for the ESP and the letter requested that AK Steel submit a revised O&amp;M plan for the BOF Shop, including the ESP.</p>

Activity Date	Activity Type	Compliance Status	Comments
11/10/2014	Excess Emissions (CEM)	Unknown	Facility submitted the 3rd quarter 2014 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% hourly opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by AK Steel). At this time, AQD needs clarification from AK Steel on their interpretation of the MACT opacity deviation language. AQD and prior owner, Severstal, were not in agreement. As such, compliance status of pending was chosen. Downtime was reviewed by TPU staff. 5 hours of downtime were reported attributable to maintenance and QA.
11/10/2014	CO/CJ	Non Compliance	Letter received reporting an exceedance of the 20% 3 minute average opacity limit for the BOF roof monitor on 9/29/14. Highest opacity was 43% for one three-minute period. Readings are required per AQD CO No. 6-2006 and the order also requires AK Steel to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Reason given was slopping of slag after a bottom blow on B Vessel. AK Steel has since revised work procedures to prevent recurrence. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
11/10/2014	CO/CJ	Compliance	Facility submitted an updated BOF Environmental Camera Operation and Maintenance Plan, per CO No. 6-2006.
11/10/2014	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2014 report for the C Blast Furnace baghouse CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 0.1% (2 hours) and was reviewed by TPU staff. No reasons given for monitor downtime.
11/10/2014	Excess Emissions (CEM)	Compliance	Facility submitted the 3rd quarter 2014 report for the C Blast Furnace stove stack CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182-05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 0.2% (5 hours) and was reviewed by TPU staff. No reason given for monitor downtime.

Activity Date	Activity Type	Compliance Status	Comments
11/10/2014	Other Non ROP	Non Compliance	Facility submitted 3rd Quarter report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Reports are required per PTI No. 182-05C. Report showed one three-minute exceedance of the 15% three-minute opacity limit on September 29, 2014. AQD was notified of that event in a report, dated Oct. 10, 2014, which was received by AQD on Oct. 17, 2014. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.
11/03/2014	Other Non ROP	Non Compliance	Facility submitted the 2nd Quarter report for BOF Roof Monitor Method 9 observations, including VE sheets and BOF Elevated Roof Opacity check sheets. Report is dated July 31, 2014, and received by AQD on Aug. 4, 2014. Reports are required per PTI No. 182-05C. Report showed two dates, May 23 and June 3, 2014, during which the three-minute 15% opacity limit was exceeded for a total of three three-minute periods. Non compliance was chosen as facility violated the opacity limit. However, at this time, facility appears to have taken appropriate action in response to the excess emissions and no further action is required. Note that this is a "snapshot" in time. A future VN may be warranted if semi annual and annual deviation reports which encompass a longer time period (6 month - 1 year) indicate that violations with the same root cause are on going and/or inadequately addressed.

Activity Date	Activity Type	Compliance Status	Comments
10/27/2014	ROP Semi 1 Cert	Non Compliance	Severstal (now AK Steel) reported 38 deviations. A Violation Notice was issued to AK Steel on October 27, 2014, based on the following reported deviations: ESP COMS exceeding 20% opacity for 28 6-minute periods; failure to perform all required inspections and maintenance to the ESP and secondary baghouse; failure to properly maintain and operate the ESP and secondary baghouse; failure to maintain required records for the BOF ESP and secondary baghouse; and failure to conduct a performance test prior to changing capture system operating parameters.
09/25/2014	ROP Other	Compliance	Request to change RO to Brian Bishop as facility ownership changed on 9/16/2014.
08/25/2014	CEM RATA	Compliance	TPU staff certified the new SO2 and flow CEMS for the C Blast Furnace baghouse
08/14/2014	Complaint Investigation	Non Compliance	Complaint investigation 8/14/2014



08/13/2014	MACT (Part 63)	Compliance	<p>Facility submitted semi annual SSM report for the HCl steel pickling line. Company certified that none of the start ups, shut downs, or malfunctions exceeded any applicable emission limits. The report describes two malfunctions which were previously reported and resolved. A copy of the letter related to one of the events was attached. The SSM plan was updated to address this scenario on March 28 2014. 63.10(d)(5)(i) describes the information required in the periodic SSM reports which reads "(5)(i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is</p>
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08/13/2014	MACT (Part 63)	Compliance	<p>certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section."</p> <p>This report appears to contain the required information. As such, compliance was chosen as the status.</p>
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Activity Date	Activity Type	Compliance Status	Comments
08/13/2014	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2014 report for the C-FCE stove CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182 -05C, the emission limit is 193.6 pph SO2 from the stove stack and 271.4 pph from the stove stack and the C BF baghouse on a 24 hour average. CEMS downtime was reported as 2.9% (59 hours) and was reviewed by TPU staff. No reasons given.
08/13/2014	Excess Emissions (CEM)	Compliance	Facility submitted the 2nd quarter 2014 report for the C-FCE baghouse CEMS. This is the first required report since installation of the CEMS. No reported excess emissions. CEMS is used to measure SO2. Effective May 12, 2014 with the issuance of PTI 182 -05C, the emission limit is 179.65 pph SO2 from the baghouse stack and 271.4 pph from the BH stack and stove combined. Both are on a 24 hour average. CEMS downtime was reported as 2.9% (59 hours) and was reviewed by TPU staff. No reasons given.
08/12/2014	MACT (Part 63)	Compliance	Updated Integrated Iron and Steel MACT plan and SSM plan for the BOF and ESP site specific monitoring plan received on 7/16/14. Plan is almost 300 pages. AQD did not fully review at this time.
08/08/2014	CO/CJ	Non Compliance	Quarterly report related to the Fugitive Dust SIP CO 30-1993 received. 1 day of wet sweeping was performed a day late. Contractor reinstructed and told to perform sweeping at beginning of month instead of waiting until the end. Corrective action appears adequate at this time. No further action is required at this time.

Activity Date	Activity Type	Compliance Status	Comments
08/05/2014	Excess Emissions (CEM)	Unknown	Facility submitted the 2nd quarter 2014 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by Severstal). As AQD does not agree with this interpretation, compliance status of pending was chosen. Downtime was reviewed by TPU staff. 3.5 hours of downtime were reported attributable to maintenance and QA
08/04/2014	CEM RATA	Compliance	Results of the initial RATA for the SO2 CEMS for the C blast furnace baghouse were received on 7/21/2014. AQD field staff was not available to observe the RATA. According to the report, the RATA was successfully completed. 7 day cal drift, response time analysis, and cylinder gas audit were also performed and submitted.
08/04/2014	CEM RATA	Compliance	Results of the annual RATA for the SO2 CEMS for the C furnace stove stack were received on 7/21/2014. AQD field staff was not available to observe the RATA. According to the report, the RATA was successfully completed.
06/23/2014	CO/CJ	Non Compliance	Letter received reporting exceedances of the 20% 3 minute average opacity limit for the BOF roof monitor on 6/3/14. Highest opacity was 31%. Readings are required per AQD CO No. 6-2006 and the order also requires Severstal to report exceedances, along with cause and corrective actions taken, within 14 days of the occurrence. Reason given was improper flux addition. I was in the control room when this occurred and was talking to the operator. At this time, the reason for the exceedance appears to be a rare occurrence. No further action required.

Activity Date	Activity Type	Compliance Status	Comments
06/13/2014	Complaint Investigation	Unknown	Fallout complaint investigation
06/03/2014	Scheduled Inspection	Non Compliance	FY 2014 inspection - BOF
05/19/2014	MAERS	Compliance	Increases in natural gas throughput correlated with same increases in emissions. Many stack tests have been conducted in 2013; some emission units have had multiple stack tests conducted at the same unit which resulted in changes in emission factors. Added a CE for EUBOPSHOP 30300913 PM10 of 99.285 (same as last year) so that system calculated value and reported value based on stack testing were not so vastly different. There are exceedances of PTI limits from 182-05B based on the MAERS report. However, facility has been issued a permit 182-05C with revised emission limits. Detailed spreadsheet of MAERS emission factors used was provided by Mr. Ted Bishop, Severstal consultant, and is attached.
05/15/2014	Scheduled Inspection	Non Compliance	FY 2014 inspection - C blast furnace and box anneal
05/01/2014	Excess Emissions (CEM)	Compliance	Facility submitted the 1st quarter 2014 report for the C-FCE stove CEMS. No reported excess emissions. CEMS is used to measure SO2. The emission limit is 275 pph SO2 on a 24 hour average. CEMS downtime was reported as 2.5% (52 hours) and was reviewed by TPU staff. No reasons given.

Activity Date	Activity Type	Compliance Status	Comments
05/01/2014	Excess Emissions (CEM)	Unknown	Facility submitted the 1st quarter 2014 report for the ESP COMS. The emission limit the facility is reporting on is a 10% hourly opacity average in the Integrated Iron and Steel MACT. Facility reported 0 hours where there was a deviation of the 10% opacity limit (note: this does not mean that there were no hourly averages where the opacity was above 10%, only that it did not meet the definition of a deviation under the Iron and Steel MACT as interpreted by Severstal). As AQD does not agree with this interpretation, compliance status of pending was chosen. Downtime was reviewed by TPU staff. 5 hours of downtime (0.24%) were reported due to PM and Q/A checks.
04/30/2014	ROP Annual Cert	Compliance	Severstal Section 2 - Levy operations. No deviations reported.
04/30/2014	ROP SEMI 2 CERT	Compliance	Severstal Section 2 - Levy operations. No deviations reported.

Name: Katie Fox

Date: 8/11/17

Supervisor: W.M.