



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
DETROIT DISTRICT OFFICE



LIESL EICHLER CLARK
DIRECTOR

March 16, 2020

Mr. LaDale Combs, General Manager
AK Steel Dearborn Works
4001 Miller Road
Dearborn, Michigan 48121-1699

SRN: A8640, Wayne County

Dear Mr. Combs:

VIOLATION NOTICE

On March 12, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), completed review of the quarterly continuous opacity monitoring system (COMS) report for the basic oxygen furnace (BOF) electrostatic precipitator (ESP) for the 4th quarter of 2019 as well as the 2019 ESP annual inspection report for AK Steel Dearborn Works (AK Steel hereafter) located at 4001 Miller Road, Dearborn, Michigan. Additionally, AQD reviewed the stack test report received on February 20, 2020, for the BOF and BOF Shop Operations test conducted on December 17, 2019. Staff reviewed the aforementioned reports to determine AK Steel's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and Renewable Operating Permit (ROP) number MI-ROP-A8640-2016a.

Based on the reports, the following air pollution violations were observed:

Process Description	Rule/Permit Condition Violated	Comments
FGBOFSHOP	ROP No. MI-ROP-A8640-2016a, FGBOFSHOP, Special Condition (SC) I.10	The stack test result was 0.123 pounds per hour (pph) of Pb (lead) for the FGBOFSHOP Secondary Baghouse and ESP stacks combined. The permit limit for FGBOFSHOP Secondary Baghouse and ESP stacks combined is 0.067 pph for Pb.
FGBOFSHOP	ROP No. MI-ROP-A8640-2016a, FGBOFSHOP, SC I.12	The stack test result was 0.18 pph of Mn (manganese) for the FGBOFSHOP Secondary Baghouse and ESP stacks combined.

		<p>The permit limit for the FGBOFSHOP Secondary Baghouse and ESP stacks combined is 0.10 pph for Mn.</p>
EUBOF	<p>ROP No. MI-ROP-A8640-2016a, Section 1, General Condition (GC) 11; R 336.1301(1)(a)</p>	<p>Based on the certified Method 9 visible emissions readings of the ESP taken during the August 14, 2019 stack test, an exceedance of the 20% 6-minute average limit was observed.</p> <p>On August 14, 2019, from 3:25:15 PM to 3:31:00 PM, the 6-minute average opacity was 30%.</p> <p>Additionally, quarterly COMS opacity reports contain exceedances of the 20% 6-minute average opacity limit from the ESP stack during every quarter starting with the 4th quarter of 2015 through the 4th quarter of 2019.</p>
EUBOF	<p>ROP No. MI-ROP-A8640-2016a, EUBOF, SC IV.1; R 336.1910</p>	<p>In 2019, the ESP failed stack testing for Pb and Mn in August, September, and December.</p> <p>The ESP has ongoing exceedances of the 20% 6-minute average opacity limit as recorded by the COMS.</p> <p>The 2019 ESP annual inspection report notes that many components are beyond the point of repair and need to be replaced.</p> <p>This is a failure to operate and maintain the air cleaning device in a satisfactory manner and in accordance</p>

		with the rules and existing law.
--	--	----------------------------------

Emissions of Mn and Pb at the BOF Shop operations are limited within ROP No. MI-ROP-A8640-2016a, FGBOFSHOP based on the combined value in pounds per hour from the ESP stack and the Secondary Baghouse stack. The limits are 0.067 pph for lead (SC I.10) and 0.10 pph for manganese (SC I.12). AK Steel measured emissions of lead and manganese from the ESP stack and the Secondary Baghouse stack on December 17, 2019, following similar testing conducted by AK Steel on August 13-14, 2019, and September 17, 2019. In each instance the measured emission rate of lead and manganese exceeded the allowed emission limit as documented in the table below:

	August 2019 (pph)	September 2019 (pph)	December 2019 (pph)
Mn ESP	0.22	0.16	0.17
Mn Secondary BH	0.014	0.004	0.0057
Total Mn	0.23	0.16	0.18
Permit Limit	0.1	0.1	0.1
Pb ESP	0.0921	0.141	0.12
Pb Secondary BH	0.0025	0.017	0.0025
Total Pb	0.095	0.158	0.123
Permit Limit	0.067	0.067	0.067

Each of the three measured emission rates for lead and manganese represents a violation of MI-ROP-A8640-2016a, FGBOFSHOP, SC I.10 and SC I.12 respectively. The violations associated with the August 13-14 and September 17 testing events have been previously documented by the AQD in Violation Notices of November 18, 2019 and November 26, 2019 respectively.

Further, it is noted in each case that the measured emissions from the ESP stack, alone, exceed the permitted emission limit for the combined stacks.

R 336.1301(1)(a) and ROP No. MI-ROP-A8640-2016a, GC 11 state, in part, that a person "shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following: a 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity."

During the August 2019 stack test, a certified Method 9 reader performed visible emissions readings of the ESP stack. Those readings were enclosed in the test report. On August 14, 2019, from 3:25:15 PM to 3:31:00 PM, the 6-minute average opacity was

30%. This is a violation of R 336.1301(1)(a) and ROP No. MI-ROP-A8640-2016a, Section 1, GC 11.

Additionally, AK Steel is required to maintain and operate a COMS in the ESP stack. Per Consent Decree Civil Action No. 15-cv-11804, VI.B.20, AK Steel is required to submit quarterly COMS data reports. Reports include each instance in which the 6-minute block average reading of opacity by the COMS exceeds 20%. Opacity exceedances reported by AK Steel are summarized in the table below, after correcting for the exception allowed within R 336.1301(1)(a): "one 6-minute average per hour of not more than 27% opacity."

	Number of COMS opacity exceedances per quarter			
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
2015				19
2016	127	31	33	125
2017	63	16	18	28
2018	90	41	49	92
2019	313	145	47	65

Each of these exceedances is a violation of R 336.1301(1)(a) and ROP No. MI-ROP-A8640-2016a, Section 1, GC 11.

ROP No. MI-ROP-A8640-2016a, EUBOF, SC IV.1 requires that the permittee shall not operate EUBOF unless the ESP is installed and operating properly. Similarly, R 336.1910 requires that an air-cleaning device be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law. The ESP is an air-cleaning device. Based on the continuing opacity exceedances, failed stack tests, and annual inspection report findings, the ESP is not being maintained and operated in a satisfactory manner. As such, AK Steel is in violation of MI-ROP-A8640-2016a, EUBOF, SC IV.1, and R 336.1910.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by April 6, 2020 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

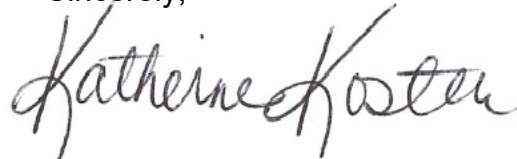
Please submit the written response to EGLE, AQD, Detroit District, at 3058 West Grand Boulevard, Suite 2-300, Detroit, Michigan 48202 and submit a copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor at EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If AK Steel believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Mr. LaDale Combs
AK Steel Dearborn Works
Page 5
March 16, 2020

Thank you for your attention to resolving the violations cited above. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,

A handwritten signature in black ink that reads "Katherine Koster". The signature is written in a cursive, flowing style.

Katherine Koster
Senior Environmental Engineer
Air Quality Division
313-456-4678

cc: Ms. Mary Ann Dolehanty, EGLE
Dr. Eduardo Olaguer, EGLE
Ms. Jenine Camilleri, EGLE
Mr. Christopher Ethridge, EGLE
Dr. April Wendling, EGLE
Mr. Jeff Korniski, EGLE
Mr. Jonathan Lamb, EGLE