UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

UNITED STATES OF AMERICA and the MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,	)	
Plaintiffs,	)	**Civil Action No. 15-cv-11804**
v.	)	
AK STEEL CORPORATION,	)	
Defendant.	)	

SOUTH DEARBORN ENVIRONMENTAL IMPROVEMENT ASSOCIATION, INC.
OBJECTIONS TO PROPOSED CONSENT DECREE

July 10, 2015

Submitted via electronic mail to PUBCOMMENT-EES.ENRD@USDOJ.GOV

D.J. Ref. No. 90-5-2-1-1072

South Dearborn Environmental Improvement Association, Inc. (SDEIA)

Objections to Proposed Consent Decree

TABLE OF CONTENTS

INTRODUCTION

The government[1] and AK Steel are seeking approval of a proposed Consent Decree that would resolve thousands of violations of air quality laws at a steel-making facility in South Dearborn, Wayne County. The proposed Consent Decree would require the facility to monitor and investigate air emissions for the next five years, require the company to pay $1.35 million to the government treasuries, and spend $337,000 to install air filters in a neighborhood school. The South Dearborn Environmental Improvement Association, Inc. (SDEIA) is a community organization that represents hundreds of people who live in the neighborhood that lies in the shadow of the facility. On behalf of its members, SDEIA respectfully objects to the proposed Consent Decree because it releases AK Steel from a large universe of liability without requiring any emissions reductions at the facility, and therefore, it is not fair, adequate, reasonable, or in the public interest.

LEGAL STANDARD

When reviewing a proposed consent decree, it is the duty of a reviewing court to independently evaluate its terms and avoid giving a "rubber stamp approval;" it must instead conduct an independent evaluation. *United States v. Montrose Chem. Corp. of Cal*., 50 F.3d 741, 747 (9th Cir.1995) (quoting *City of Detroit v. Grinnell Corp*., 495 F.2d 448, 462 (2d Cir.1974)). The standard is whether a proposed Consent Decree is fair, adequate, reasonable, and consistent with the public interest. *See United States v. Lexington-Fayette Urban County Government*, 591

[1] The plaintiffs are the United States of America, through the United States Environmental Protection Agency (EPA), and the Michigan Department of Environmental Quality (DEQ).

F.3d 484, 489 (6th Cir. 2010) (citations omitted); *United States v. Colorado*, 937 F.2d 505, 509 (10th Cir. 1991) (citation omitted).

"One of the most important considerations when evaluating whether a proposed consent decree is reasonable is 'the decree's likely effectiveness as a vehicle for cleansing' the environment." *US v. Lexington-Fayette*, 491 F.3d at 489 (quoting *United States v. Akzo Coatings of America, Inc*., 949 F.2d 1409, 1437 (6th Cir.1991)). A settlement that results in "no pollution reduction" raises particular concern about whether it is fair and reasonable. *See US v. Chevron USA, Inc.,* 380 F.Supp.2d 1104, 1114-17 (N.D. Cal. 2005); *United States v. Montrose Chemical Corp. of Cal*., 50 F.3d 741 (9th Cir.1995) (finding, in a CERCLA action, that the district court abused its discretion by entering the consent decree without having any estimate of the damage done to the environment).

In evaluating the public interest, the review analysis considers whether the decree is "consistent with the public objectives sought to be attained by Congress." *US v. Lexington-Fayette*, 491 F.3d at 490 (quoting *Williams v. Vukovich*, 720 F.2d 909, 923 (6th Cir.1983) (citation omitted)). Thus, the consent decree must be consistent with the underlying statute that the decree is enforcing – here, the Clean Air Act, which is intended to protect and enhance air quality to promote public health and welfare. *Id*. at 489 (evaluating consent decree to resolve violations of the Clean Water Act); 42 U.S.C. § 7401(b)(1) (purpose of the Clean Air Act).

Moreover, where a consent decree impacts public interests, there is a heightened review responsibility if the interests at stake were not represented in the negotiating process. *See United States v. Oregon*, 913 F.2d 576, 581 (9th Cir. 1990). In June 2014, SDEIA filed a Clean Air Act citizen suit against AK Steel to resolve many of these same violations through meaningful

emissions control improvements at the facility.[2] Instead of allowing SDEIA – representing the neighborhood closest to the facility and unquestionably directly impacted by the facility's many violations – to participate in their negotiations, SDEIA was excluded from the discussions.[3] Thus, special care must be taken in this case to determine whether this agreement is fair, adequate, reasonable, and in the public interest.

THE AFFECTED NEIGHBORHOODS

The AK Steel facility is upwind and immediately adjacent to a neighborhood known as South Dearborn or the "South End."[4] Eighty percent of the South End neighborhood is Arab-American, and 86% speak a language other than English.[5] Further, 43% of the population has income below the poverty level.[6] As such, the South End neighborhood is predominantly a "population of interest" for environmental justice purposes.[7] There is an ambient air quality

[2] *SDEIA v. AK Steel*, United States District Court, Eastern District of Michigan, Case No. 2:14-CV-12387 (filed June 18, 2014).

[3] The government parties did host one public meeting in May 2014 to seek ideas for potential SEPs, and another in June 2015 to explain the Consent Decree. In addition, representatives from the Dept of Justice and EPA met with members of SDEIA to hear their concerns, and also provided SDEIA with a preview of the not-quite-final proposed Consent Decree with an opportunity to comment, and most of those comments were incorporated into the agreement.

[4] The South End neighborhood is generally between the Severstal (Rouge) complex and Woodmere Cemetery, Patton Park, and Holy Cross Cemetery. For census data purposes, we use Census Block 5735. *See* Census Block 5735, Wayne County, Michigan, **Exhibit 1.**

[5] 2008-2012 American Community Survey 5-Year Estimates (March 27, 2014), **Exhibit 2.**

[6] 2008-2012 American Community Survey 5-Year Estimates Selected Economic Characteristics (March 27, 2014), **Exhibit 3.**

[7] EPA Activities to Promote Environmental Justice in the Permit Application Process ("The term "overburdened communities" refers to "minority, low-income, tribal and indigenous populations or communities in the United States that potentially experience disproportionate environmental

monitor (the "Dearborn" monitor) in the parking lot of the Salina Elementary School, the South End's elementary and middle school.[8]

Also downwind from AK Steel are the neighborhoods of Southwest Detroit, including the 48217 ZIP code, which EPA designated as an Environmental Justice area due to its minority and low-income populations.[9] Researchers have described the 48217 neighborhood as the most polluted zip code in Michigan.[10] The North Delray and South Delray air quality monitors are located in Southwest Detroit.[11]

Residents in the South End and Southwest Detroit suffer disproportionately from air pollution. EPA designated Wayne County as "non-attainment" for fine particulates (PM2.5)[12]

---

harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards."), available at www.epa.gov/environmentaljustice/plan-ej/permitting.html (last viewed July 10, 2015).

[8] *Ambient Air Levels of Manganese in Southeast Michigan: Evaluation and Recommendations by the AQD Manganese Workgroup* (Mar 27, 2012), at Page 19, Fig. 5 (showing air quality monitors in relation to AK Steel facility – labeled as Severstal), **Exhibit 4.**

[9] *See Michigan Environmental Justice Plan* (Dec. 17, 2010), available at https://www.michigan.gov/documents/deq/met_ej_plan121710_340670_7.pdf, last visited July 10, 2015.

[10] Tina Lam, *48217: Life in Michigan's Most Polluted ZIP Code*, THE DETROIT FREE PRESS (June 20, 2010), available at http://archive.freep.com/article/20100620/NEWS05/6200555/48217-Life-Michigan-s-most-polluted-ZIP-code, last visited June 16, 2015.

[11] See *Ambient Air Levels of Manganese in Southeast Michigan: Evaluation and Recommendations by the AQD Manganese Workgroup* (Mar 27, 2012), at Page 19, Fig. 5 (showing air quality monitors in relation to AK Steel facility – labeled as Severstal), **Exhibit 4.**

[12] "PM2.5" refers to particulate matter (PM) that is less than 2.5 microns in diameter, and is also referred to as "fine particulate matter."

from January 2005 to August 2013.[13] Scientific studies link fine particulate exposure to various negative health effects, including premature mortality, increased hospital admissions and emergency department visits, and development of chronic respiratory disease.[14] A scientific consensus is emerging that there is no safe threshold for exposure to PM2.5.[15] The Dearborn monitor records the highest ambient levels of fine particulates in Michigan.[16] The AK Steel facility is the largest single contributor to fine particulate pollution at the Dearborn monitor in the South End neighborhood.[17]

In addition, EPA designated part of Wayne County (including the South End and Southwest Detroit neighborhoods) as "non-attainment" for sulfur dioxide in August 2013.[18] The

---

[13] 70 Fed Reg 944 (Jan. 5, 2005) (designated attainment for PM2.5); 78 Fed Reg 53272 (Aug. 29, 2013) (re-designated attainment for PM2.5).

[14] *Summary of Expert Opinions on the Existence of a Threshold in the Concentration-Response Function for PM2.5-related Mortality*, Technical Support Document Compiled by U.S. Environmental Protection Agency Office of Air Quality Planning and Standards, Health and Environmental Impact Division, Air Benefit-Cost Group, Research Triangle Park, North Carolina (June 2010), **Exhibit 5.**

[15] *Reduction in fine particulate air pollution and mortality: extended follow-up of the Harvard Six Cities Study*, Am J. Respir. Crit. Care Med. 173:667-672; Bayer-Oglesby et al. (2005): *Decline of ambient air pollution levels and improved respiratory health in Swiss children*, Environ. Health Perspec. 113, 1632-1637; Pope et al. (2004): *Cardiovascular mortality and long-term exposure to particulate air pollution: Epidemiological evidence of general pathophysiological pathways of disease*. Circulation 109:71-77; Krewski et al. (2005): *Mortality and long-term exposure to ambient air pollution: ongoing analyses based on the American Cancer Society cohort*. J. Toxicol. Environ. Health 68:1093-1109, **Exhibit 6.**

[16] See MDEQ Data Completeness and Quarterly Averages of Fine Particulate Material in Michigan (updated 3/10/2014) (showing Dearborn monitor with highest rates in Michigan), **Exhibit 7.**

[17] Hopke and Gildemeister, *Local Sources of Fine Urban Particulate Matter in Dearborn, MI* (2005), **Exhibit 8.**

[18] 78 Fed Reg 47191 (Aug. 5, 2013).

health concerns associated with sulfur dioxide include bronchoconstriction and increased asthma symptoms, particularly while exercising or playing, and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children and the elderly.[19] AK Steel emits hundreds of tons of sulfur dioxide every year.[20]

Further, a 2012 DEQ Report found that manganese levels in South Delray and Dearborn "remain consistently above the health protective benchmark level, higher than other Michigan sites, and some of the highest values measured within [EPA] Region 5 and across the U.S."[21] Manganese is a neurotoxin that, among other adverse effects, can cause deficits in motor skills.[22] Based on meteorological and pollution data, the Report found, "[t]he primary source contributor at the Dearborn site was Severstal [now AK Steel]," and that AK Steel is by far the largest regional source of manganese.[23]

Residents of the South End and Southwest Detroit suffer in disproportionately high numbers from multiple diseases and ailments associated with environmental pollution, including but not limited to asthma and other respiratory diseases.[24] The Michigan Department of

---

[19] *Id.*

[20] MDEQ MAERS Data for AK Steel (2009 through 2013), **Exhibit 9.**

[21] *Ambient Air Levels of Manganese in Southeast Michigan: Evaluation and Recommendations by the AQD Manganese Workgroup* (Mar 27, 2012), at Page 10, **Exhibit 4.**

[22] *Id.* at Page 6.

[23] *Id.* at Page 26, Figure 6.

[24] ACCESS Health Journal, Fall 2013, *Health Disparities Between Arab and Chaldean Americans in Southeast Michigan and Michigan Residents: Differences in Access to Health Providers and Insurance*, Harry Perlstadt, Stephen Gasteyer, Rosina Hassoun, Stephanie Nawyn, Miles McNall, and Hiam Hamade *(id.* at Pages 21-27); *A First Look at Chronic Diseases and*

Community Health coined Detroit, "the epicenter of asthma burden in Michigan," stating that the severity of the asthma burden in Detroit warrants "immediate attention," asthma hospitalization rates in Detroit were three times higher than Michigan as a whole, asthma prevalence among adults in Detroit was 50% higher than the statewide average, and rates of asthma death in Detroit are over two times higher than overall state numbers.[25]

It is against this backdrop – environmental justice communities whose residents already breathe the worst air quality in the state, by multiple measures, and where the AK Steel facility is a significant source of their air pollution – that the adequacy, fairness, reasonableness, and public interest of the proposed Consent Decree is to be evaluated.

AK STEEL'S OPERATIONS

AK Steel owns and operates the steel plant adjacent to the neighborhood where most of SDEIA's members live. AK Steel bought the facility from Severstal in 2014 through an asset purchase and merger transaction.[26]

For context, a simple description of AK Steel's operations and air pollution controls follows. Raw materials (iron ore, coke, and limestone) are heated to form molten iron at the

---

Lifestyle Behaviors Among Arab and Chaldean Americans in Southeast Michigan, Rosina Hassoun, Elizabeth Hughes, Mona Farroukh, Miles McNall, and Karen Patricia Williams (*id*. at Pages 17-20); *Abstract: Place Matters: The Social Determinants for Infant Mortality, Mouhanad Hammami* (*id*. at Page 153) ("More babies die before their first birthdays in Wayne County and the city of Detroit than in many parts of the United States and the world."); **Exhibit 10.**

[25] Mich Dept of Community Health, *Epidemiology of Asthma in Michigan – Chapter 12 Detroit: The Epicenter of the Asthma Burden*, at Page 1 (2008), **Exhibit 11.**

[26] Stipulated Order to Amend Caption, *SDEIA v. Severstal Dearborn LLC* (Oct. 21, 2014), and Certificate of Merger (Sept. 16, 2014), **Exhibit 12.**

Blast Furnace. From the Blast Furnace, the molten iron, which is in a ladle, is transferred to the Basic Oxygen Furnace. In the Basic Oxygen Furnace, the molten iron is combined with scrap and other additions, oxygen is "blown" into the ladle via a lance, and sulfur is removed through a desulfurization process, resulting in molten steel. From there, the hot steel is refined, then cast, rolled into coils, and finished.

The Blast Furnace and the Basic Oxygen Furnace are substantial sources of air emissions. Dearborn Works had two Blast Furnaces, called B-BF and C-BF, but B-BF was destroyed in 2008 and has not operated since. C-BF was entirely rebuilt in 2006, and during the re-build, a new baghouse was installed to control emissions. The Basic Oxygen Furnace controls its air emissions in two ways: with the Electrostatic Precipitator (ESP), which was installed in 1964 and has never been updated; and with the secondary baghouse, which was installed in 2006.

Although the violations that are the subject of the proposed Consent Decree arise from operations at a variety of sources within the Dearborn Works facility (see table below), the equipment of particular concern to this matter is the ESP on the Basic Oxygen Furnace, which has been the subject of multiple prior consent decrees and thousands of violations.[27] The ESP uses electrical charges to remove particulates from the off-gas generated at the Basic Oxygen Furnace, before the gases are released from the facility. The ESP is discussed further below.

[27] *See* Complaint, Par. 44 to 48; Proposed Consent Decree, Par. 19 to 22; and discussion about violation notices and prior consent decrees, *infra*.

AK STEEL'S VIOLATIONS

The proposed Consent Decree would resolve AK Steel's liability for violations dating back to 2008.[28] A table summarizing the violations follows (all these violation notices were issued by DEQ, except for the two noted – June 15, 2012, and March 5, 2013):[29]

Date	Allegation	Period of violation
8/12/2008	Fall-out in Melvindale	2 days
10/6/2008	C-Blast Furnace roof monitor – opacity violation	1 instance cited
2/24/2009	BOF ESP Stack – stack test failure, carbon monoxide emissions	Continuous, through at least May 12, 2014[30]
	BOF Baghouse Stack - stack test failure, PM10 emissions	
	C-Blast Furnace Baghouse Stack - stack test failure, sulfur dioxide emissions	
	C-Blast Furnace Baghouse Stack - stack test failure, PM10 emissions	
	C-Blast Furnace Stove Stack - stack test failure, mercury emissions	
4/23/2009	C-Blast Furnace roof monitor – opacity violation	1 instance cited
7/17/2009	Fall-out at the Ford Plant parking lot	1 day
10/7/2009	Blast Furnace Slag Pit – visible smoke	1 day
	Blast Furnace casthouse – opacity violation	1 instance cited
10/28/2009	Fallout in Melvindale	1 day
1/6/2010	C-Blast Furnace bleeder stack – opacity violation	1 instance cited
2/11/2010	C-Blast Furnace roof monitor – opacity violation	1 instance cited

[28] *See* Appendix A to proposed Consent Decree (listing Violation Notices) and Par. 73 of proposed Consent Decree (the Consent Decree resolves any administrative or civil judicial action that could be brought by the US or the DEQ regarding the violations listed in Appendix A).

[29] A copy of each of the Violation Notices is attached as **Exhibit 13.**

[30] These stack tests identified that equipment, including the two baghouses installed in 2006, did not meet permit limits. AK Steel takes the position that these violations were remedied when MDEQ "revised" the permit and increased the emissions limit beyond the stack test results. *See Motion for Partial Dismiss* filed by AK Steel (Oct. 13, 2014, Case No. 2:14-cv-12387, United States District Court, Eastern District of Michigan). The validity of the new permit is the subject of pending litigation. *SDEIA et al v. MDEQ et al* (Case No. 14-008887-AA, Wayne County Circuit Court). Notwithstanding references to the new permit herein, SDEIA continues to dispute its validity for all the reasons in the permit appeal.

5/18/2010	Fallout	4 days
8/18/2010	Fallout	1 day
10/28/2010	Blast Furnace Slag Pits – opacity violation	1 instance cited
	BOF ESP - opacity violation	1 instance cited
	BOF roof monitors – excessive deviations, no root cause identified	1 instance cited
11/22/2010	Fallout from blast furnace slag pits	6 days
12/10/2010	Fallout	5 days
	Slag Pit opacity violation	1 instance cited
1/5/2011	C-Blast Furnace Cast House baghouse stack – stack test failure, manganese & lead emissions	Continuous from at least August 2010 until at least May 2014.[31]
	Desulfurization baghouse stack - stack test failure, manganese and lead emissions	Continuous from at least August 2010 until April 8, 2013.[32]
3/15/2011	BOF Opacity Monitor - failure to continuously monitor	Opacity monitor down 38.6% of the operating time for the fourth quarter of 2010
4/28/2011	BOF ESP Stack - opacity violations	Multiple exceedances
	BOF B Vessel - opacity violations	Multiple exceedances
	BOF Roof Monitors - opacity violations	Multiple exceedances
	Steel manufacturing facility & process - excessive deviations	Multiple exceedances
8/16/2011	C-BF bleeder stack - opacity violations	1 instance cited
	C-BF Stove stack - opacity violations	1 instance cited
9/20/2011	Fallout on Luther, Oakwood, Colonial, Ormond Streets	1 day, 8 complaints received in multiple locations
10/24/2011	Fallout in Oakwood Heights - inadequate response to prior Violation Notice	1 instances cited
12/8/2011	Desulfurization baghouse inspections - failure to conduct monthly inspections since June 2010	Multiple
	Desulfurization baghouse - failure to present records of bag leak detection alarms and corrective action	Multiple

[31] *Id.*

[32] Stack testing in April 2013 demonstrated potential compliance at the C-Blast Furnace baghouse and Basic Oxygen Furnace Desulfurization baghouse for manganese and lead. Whether that stack testing is reliable and demonstrative of operations is discussed further below.

	BOF - failure to provide consecutive monthly inspections of secondary emissions baghouse; some weekly records not provided	Multiple
	BOF- failure to present bag leak detection alarms and corrective action	Multiple
	BOF- failure to properly maintain records of fragmented scrap usage	Multiple
	BOF- failed to reduce oxygen blow rate as required	Multiple
3/29/2012	BOF B-Vessel - opacity violations	1 instance cited
	BOF ESP Stack - opacity violations	1 instance cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
5/1/2012	BOF ESP Stack - opacity violations	2 instances cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
5/10/2012	BOF ESP Stack - opacity violations	2 instances cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
5/16/2012	BOF Roof Monitors - opacity violations	1 instance cited
	BOF ESP Stack - opacity violations	1 instance cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
6/15/2012 (EPA)	BOF ESP Stack - opacity violations	6 instances cited
	C-BF bleeder stack - opacity violations	2 instances cited
	C-BF East Taphole roof monitor - opacity violations	2 instances cited
	C-BF Stove stack - opacity violations	1 instance cited
	BOF B Vessel - opacity violations	2 instances cited
	BOF Roof Monitor - opacity violation	1 instance cited
	Fallout events	13 instances cited
	Slag pit opacity violation	1 instance cited
6/29/2012	BOF Roof Monitor - opacity violation	1 instance cited
	BOF ESP Stack - opacity violations	4 instances cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
7/19/2012	BOF Roof Monitor - opacity violation	1 instance cited
7/31/2012	BOF Roof Monitor - opacity violation	1 instance cited
	BOF ESP Stack - opacity violation	1 instance cited
	BOF ESP Stack - failure to properly install, maintain, and operate the ESP	Continuous
8/14/2012	BOF Roof Monitor - opacity violation	1 instance cited
9/13/2012	Desulfurization slag handling – opacity violation	2 instances cited
9/13/2012	BOF ESP Stack - opacity violation	1 instance cited

	BOF ESP Stack - Failure to properly install, maintain, and operate the ESP	Continuous
9/27/2012	New Pickle Line - Failure to record pickle line scrubber data once per shift	Daily, Aug 2011 to Sept 5 2012
	New Pickle Line - Failure to inspect pickle line scrubbers no less than every 3 months since August 2011	Multiple
	New Pickle Line - Failure to complete inspection of pickle line scrubber, including visual inspection of scrubber	Multiple
	New Pickle Line - Failure to calibrate monitoring devices at least yearly	Multiple
	New Pickle Line Tank Farm - Failure to keep daily record of liquid flow to pickle line tank farm scrubber	Daily, August 2011 to September 5, 2012
	New Pickle Line Tank Farm- Failure to inspect tank farm & scrubber semi-annually	Multiple
	New Pickle Line Tank Farm – Failure to perform complete inspection of tank farm, including loading operations & closed vent system	1 instance cited
	New Pickle Line Tank Farm - Failure to implement an OMP for pickle line & tank farm	Continuous
	Scale Breaker Baghouse - Failure to conduct quarterly inspections, failure to maintain baghouse due to lack of inspections	Multiple
11/14/2012	Ladle Refining Facility - Failure to conduct monthly baghouse inspections at each baghouse	Multiple
	Ladle Refining Facility - Failure to properly install, operating & maintain bag leak detection system	Continuous
	Ladle Refining Facility - failure to report violations in the semi-annual deviation reports	Multiple
	Ladle Refining Facility - Stack test failure for particulate matter	Continuous from July 14, 2012, until September 25, 2012[33]
	Ladle Refining Facility - Failure to maintain, install, operate baghouses - failed stack testing	Continuous
	BOF Shop - Stack test failure for Manganese and Lead from ESP and BOF baghouse	Continuous, from July 2012 until December 11, 2012[34]

[33] Stack testing on September 25 to 27, 2012, demonstrated compliance at this source.

[34] Stack testing on December 11, 2012, demonstrated compliance at this source, though as discussed below, the ESP stack testing may be unreliable.

	BOF Shop - failure to install, maintain and operate the ESP and baghouse	Continuous
	BOF Roof Monitor - opacity violation	3 instances cited
11/29/2012	Fallout on Luther and Heidt Streets	2 days
1/24/2013	Second Notice – follow-up on November 14, 2012, Violation Notice – insufficient response received	No new violations cited
1/30/2013	BOF ESP Stack - Failure to maintain records of continuous compliance due to lack of monthly inspections	Multiple, between January 2010 and August 2012
	BOF ESP Stack - Failure to perform preventative maintenance	Multiple, between January 2010 and August 2012
	BOF ESP Stack - failure to maintain records to demonstrate continuous compliance with rules due to lack of monthly inspection records	Multiple
	BOF ESP Stack - Failure to maintain & operate ESP & capture system	Multiple
	BOF ESP - opacity violations; failure to operate and maintain the ESP; failure to report deviations at the ESP	1,528 hourly exceedances from January to September 2012
	Facility-wide - Failure to report missed inspection from Jan 2010 to Aug 2012	Multiple
	Facility-wide - Failure to submit semi-annual report	1 instance cited
	Facility-wide - Failure to include deviations from 10% opacity at stack test in April 2012 in semi-annual report	2 instances cited
	Facility-wide - Failure to establish operating limit parameters that represent performance of the capture system for the secondary baghouse.	1 instance cited
	BOF Roof Monitor - Failure to report opacity violation	1 instance cited
3/5/2013 (EPA)	BOF ESP Stack -opacity violations	1,660 occasions from June 14 to September 12, 2012
3/8/2013	Hot dip galvanizing line - Stack test failure - Ammonia	Continuous, December 2012, through March 12, 2013.[35]
	Hot dip galvanizing line - failure to timely complete NOx emissions testing	1 instance cited
3/27/2013	BOF ESP – opacity violation	1 instance cited
	BOF ESP – Failure to maintain and operate ESP	Multiple
5/13/2013	C-BF Casthouse - Failure to inspect	Multiple, January to December 2012

[35] Stack testing on March 12, 2013, demonstrated potential compliance at this source.

	C-BF Casthouse -Failure to maintain records	Multiple, January to December 2012
	C-BF Casthouse -Failure to continuously monitor & record damper position and fan amps	Continuous, January to December 2012
	C-BF Casthouse - Failure to operate property - no inspections	Continuous, January to December 2012
4/15/2014	No. 1 Ladle Refining - Failure to maintain when baghouse pressure drops	Multiple
	No. 2 Ladle Refining - Failure to maintain when baghouse pressure drops	Multiple
	C-BF Casthouse - Failure to inspect & preventative maintenance, and to maintain records of compliance	Multiple, January to December 2013
	C-BF Casthouse - Failure to maintain baghouse system	Multiple, January to December 2013
	C-BF Casthouse - Failure to meting operating limits for dampers and fan amps as specified in the O&M Plan	Multiple, January to December 2013
	BOF ESP - Failure to perform all inspections, and to maintain records to demonstrate compliance	Multiple, July to December 2013
	BOF ESP - Failure to maintain and operate ESP	Multiple, January to December 2013
	BOF ESP - opacity violations	221 exceedances from January to December 2013
	BOF BOF secondary baghouse - Failure to perform all inspections	Multiple, January to December 2013
	BOF ESP - Failure to conduct COMS quarterly maintenance	1 instance cited
	BOF secondary baghouse - Failure to property maintain and operate the baghouse	Multiple, January to December 2013
	BOF secondary baghouse - failure to meet operating limits for dampers and fan speeds as required in the O&M plan	Multiple, January to December 2013
	Facility-wide - fugitive dust violations of opacity limits	Multiple, January to December 2013
9/2/2014	Fallout resulting from beaching of molten iron	1 instance cited
10/27/2014	BOF ESP – opacity violations	28 instances cited between January and June, 2014
	BOF ESP – Failure to inspect & preventative maintenance, and to property maintain & operate	Multiple, January to June 2014
	BOF Secondary Baghouse – Failure to maintain records of inspections, and to maintain records of inspections	Multiple, January to June 2014

	BOF Secondary Baghouse – Failure to conduct new performance test prior to changing capture system	Multiple, January to June 2014

Of the above violations, some individual citations violate multiple permit conditions, consent decrees, federal regulations, and state rules. For example, in the January 30, 2013, notice for failure to perform ESP inspections and maintenance, DEQ cited the failure as a violation of seven different permit and rule requirements. Some of the violations – for example, opacity exceedances – involve multiple pollutants being emitted, such as manganese and fine particulates. Many of these violations are not contested. For example, Severstal performed – and did not contest the results of – the stack testing that identified emissions well beyond permit limits, as cited in the February 24, 2009, and April 28, 2011, violation notices.

In sum, these notices collectively document thousands of violations at multiple emission sources at the facility. Other than through this proposed Consent Decree, the facility has not been subject to enforcement action for any of these violations.

REGULATORY CONTEXT FOR THE PROPOSED CONSENT DECREE

In addition to remedying past violations, the proposed Consent Decree is intended to ensure that, when the compliance measures required by it have been fully implemented, the facility will be operated and maintained to prevent a recurrence of the alleged violations.[36] Assessing whether it is reasonable to expect the measures in the proposed Consent Decree will ensure future compliance requires some consideration of the facility's compliance history and the regulators' enforcement history. Moreover, this regulatory history is helpful in evaluating

[36] *See* Proposed Consent Decree, Par F, at Page 1.

whether this proposed Consent Decree is fair and in the public interest because it shows how long the affected community has suffered consistently similar violations from this facility, and how little has been yet been done to ensure a compliant facility.

1. 1997 to 2006:

Since 1997, regulators have entered four consent orders with the owners of the Dearborn Works facility to bring its ESP and other emissions sources into compliance with the Clean Air Act and state regulations:

- *Stipulation for Entry of Final Order by Consent*, SIP No. 30-1993, Michigan Department of Natural Resources (entered October 12, 1994).[37] To resolve fugitive dust emissions and particulate emissions from the facility, this Order required the facility to undertake a series of dust suppressant activities including spraying piles, roads, and conveyors with water or other liquid to reduce dust (Ex A); and to comply with specified emissions limits and do stack testing to demonstrate compliance (Ex B).

- *Stipulation for Entry of Final Order by Consent*, Case No. WCAQMD No. 0030-97, Wayne County Department of Environment, Air Quality Management Division, *In the matter of Administrative Proceedings against Rouge Steel Company* (entered April 17, 1998).[38] To resolve six days of opacity violations at ESP from March through June 1997, this Order required the facility to:
  - Develop and implement a "Q-101 Compliance Program" for the ESP to optimize and assure continued compliance with the Consent Order, and required periodic summary reports of to the regulator (Par 9 and 10). This Compliance Program is a documented quality system, with a Manual that identifies the company-wide structure and methods for maintain quality management systems, and includes the standards and procedures specifying who does what, when, and what documentation is used to verify it was done properly (Ex A);
  - Implement a Basic Oxygen Furnace Stack Quality Control Plan Schedule (Par 11);
  - Develop and implement a preventative maintenance and inspection schedule to maintain the BOF ESP Opacity Monitor (Par 12);
  - Conduct visible emissions reasons from the ESP two hours every week (Par 13);

[37] **Exhibit 14.**

[38] **Exhibit 15.**.

- Implement a Visible Emission Program if the ESP Opacity Monitor is not operating (Par 14);
- Conduct stack testing for the ESP in 1998 and 2000 (Par 15); and
- Pay a penalty of $175,000 (Par 33).

- *Consent Decree*, Case Nos. 00-75452 and 0075454, United States District Court for the Easter District of Michigan, Southern Division, *United States of America, County of Wayne, and Michigan Department of Environmental Quality v. Rouge Steel Company and Rouge Industries, Inc.* (signed in March and April 2002).[39] To resolve at least 48 opacity violations at the C-Blast Furnace, ESP, and other equipment, between 1998 and 2000, this Order required the facility to:
  - Demonstrate compliance at the blast furnaces and Basic Oxygen Furnace and propose Operating and Maintenance ("O&M") procedures for the facility (Par 10, 11, 12);
  - Follow the O&M Procedures to be developed, and monitor and submit summary information to the EPA and DEQ to demonstrate their ongoing use (Par 13);
  - Perform observations of visible emissions at the blast furnaces and BOF for one cast once a week and record the O&M practices and emission control technologies used for every cast (Par 18, 19); and
  - Pay a civil penalty of $458,000 (Par 26).

- Stipulation for Entry of Final Order by Consent, AQD No. 6-2006, State of Michigan, Department of Environmental Quality, Office of the Director, *In the matter of administrative proceedings against Severstal North America, Inc*. (signed March 21, 2006).[40] To resolve opacity violations as the Basic Oxygen Furnace roof monitor, C-Blast Furnace casthouse, C-Blast Furnace bleeders, and other locations, in 2004 and 2005, of substance, this Order required as follows:
  - Install a baghouse on the C-Blast Furnace and a secondary baghouse on the Basic Oxygen Furnace (Par 10.A);
  - By June 30, 2008, either shut down or install a baghouse on the B-Blast Furnace (Par 10.B);
  - Prohibition on torch cutting of scrap at the Electric Arc Furnace (Par 11);
  - Reduce oxygen blow during part of the production process (Par 11.B);
  - Install digital cameras on the Basic Oxygen Furnace to better obtain continuous information about the status of operations at the BOF (Par 12.A);
  - Conduct visible emissions observations of the BOF roof monitors for two hours per week (Par 12.B); and
  - Pay a settlement amount of $900,000 (Par 20).

[39] **Exhibit 16.**

[40] **Exhibit 17.**

These prior consent agreements show the Dearborn Works facility has a long history of non-compliance. They also reveal that the facility has been under regulator orders dating back to 1998 that require it to monitor, record, create management system and O&M documents, test, and report visible and particulate emissions from the ESP. They also confirm that contemporary (2008 to 2014) citations for fugitive dust ("fallout") and particulate violations are consistent with historic violations that date back to at least 1994. The consistency of violations continuing through at least 2014 indicates past monitor-document-report remedies have been largely ineffective at ensuring future compliance. This pattern of violations followed by ineffective remedies also helps explain why the downwind neighbors suffer such poor air quality.

2. Post-2006:

After the 2006 Order, the facility sought a permit that would allow it to increase its production, and – as required by the 2006 Order – to install baghouses on the C-Blast Furnace and the Basic Oxygen Furnace.[41] DEQ issued the permit (PTI 182-05) in 2006. That permit was amended in 2006 and 2007 to modify equipment or processes.[42]

In 2008 and 2009, as required by the permit, Severstal measured stack emissions to show the equipment operated in compliance with permit limits.[43] The results showed some of

[41] DEQ, Public Participation Documents for Severstal Dearborn LLC, Permit Application No. 182-05C (Feb. 12, 2014), at Page 1, **Exhibit 18.**

[42] *Id.*

[43] *Id.*

facility's stack emissions exceeded its permit limits,[44] so DEQ issued a violation notice to Severstal and initiated – and then escalated -- enforcement against the company.[45]

In response to DEQ's February 2009 notice for the emissions violations documented in stack testing, Severstal took the position that DEQ should increase the emission limits of its permit.[46] DEQ initially resisted upping the permit limits, in part due to the facility's poor compliance history and the impact to the affected communities:

> Severstal's equipment has not and currently cannot operate in compliance with either the rules of the department or the Clean Air Act. . . . It is clear and the facility has openly admitted that there has been total disregard for the maintenance of the ESP and for the air quality requirements. . . . As previously noted, since July 23, 2010, the date the facility was referred to AQD Enforcement, [to August 2012], there have been 117 complaints alleging fallout and opacity from various processes at the facility, 76 on-site visits in addition to routine surveillance conducted in the area, and over 20 Violation Notices sent to the company. ***This is by far the most egregious facility in the state***. The majority of the complaints have come from Detroit's 48127 zip code, which is considered by EPA as an Environmental Justice area. One of the questions raised is which is higher priority ambient air or stack data? The two are not mutually exclusive. Stack emissions impact the ambient air and the Clean Air Act and is implementing rules regulate both. The enforcement action lies with EPA.[47]

When negotiations with DEQ did not progress as desired, the company sought assistance from Michigan Economic Development Corporation:

---

[44] *Id.* at Page 2.

[45] Feb. 24, 2009, Violation Notice, **Exhibit 13;** MDEQ Staff Activity Report (July 1, 2010), recommending escalated enforcement action for Severstal Dearborn facility and outlining stack test violations, **Exhibit 19.**

[46]Mar. 27, 2009, letter from J. Earl (Severstal) to B. Sia (MDEQ), at Page 2) **Exhibit 20.**

[47] Aug. 16, 2012, email from L. Fiedler (DEQ) to V. Hellwig *et al* (DEQ), at page 2 (emphasis added), **Exhibit 21;** *see also* April 13, 2010, email from M. Dolehanty (DEQ) to J. Earl (Severstal) (objecting to request to revise permit), **Exhibit 22.**

> Mike Finney and Governor Snyder attended a grand opening event at Severstal today. While he was there, Mike spoke with [Severstal North America CEO] Sergei [Kuznetsov] who expressed some concerns on the air permitting process. We may not have all this exactly right, but this is what I took down:
>
> - Severstal thinks DEQ may get EPA involved, and doesn't think that should be. They think they should be grandfathered (sounds similar to Guardian).
> - This involvement will add cost and time.
> - Can DEQ do anything to help them make this more efficient?
> - Can you kick the tires over at DEQ to see where this stands? We need to know what the issue is, and have a reasonable response for the company. If there is something the DEQ can do to help the company comply, etc. we can help connect the players. We can get contact details from Mike if it gets to that point. At this point, we just need a better understanding of where things stand so we can communicate with the company.[48]

DEQ ultimately accepted the company's position and found a novel (and unlawful, in SDEIA's opinion) way to increase permit limits without imposing any new technology or control requirements – by "grandfathering" the revised permit under 2006 standards.[49] Still, the enforcement case proceeded, potentially to include criminal action against the company.[50] But once DEQ issued the new permit on May 12, 2014, it sidelined enforcement to the Attorney

---

[48] June 21, 2012, email from A. Banninga to S. Holben, MEDC, **Exhibit 23.**

[49] DEQ Public Participation Documents, at Pages 2, 4 to 6, Table 1 **Exhibit 18**; *see also Sierra Club v. EPA*, 762 F.3d 971 (9th Cir. 2014) (EPA must issue permits under rules in place at the time the permit is issued).

[50] February 19, 2014, email from MEDC's A. Banninga (message to supervisors with update that new permit had been noticed for public comment, and noting: "This is progress, but there is still a separate EPA enforcement action underway that will be newsworthy. There may be some who do not agree with moving forward with this permit to install new equipment while there are still outstanding historic infractions *that include possible criminal charges*.") (Emphasis added), **Exhibit 24.**

General and Department of Justice.[51] SDEIA and others appealed the permit, and the Wayne County Circuit Court is considering the appeal.[52]

As for the "escalated" enforcement case against "the most egregious facility in the state" for the uncontested stack test violations? The governments' Complaint does not mention them, and the proposed Consent Decree would release the company from liability associated with them.[53] In the end, over five years[54] of continuous, unpermitted emissions of multiple pollutants from multiple stacks into an environmental justice neighborhood with already degraded air comes to nothing but a new permit.

SDEIA'S OBJECTIONS TO THE PROPOSED CONSENT DECREE

The proposed CD has five major parts: (a) a civil penalty of $1,353,126, which is to be split between the treasuries of the United States and the State of Michigan; (b) a requirement to create an Environmental Management System; (c) provisions related to operation of the ESP; (d) provisions related to fugitive dust; and (e) a Supplemental Environmental Project (SEP) that requires AK Steel to spend $337,000 to install air filters in 24 classrooms at a neighborhood school.

---

[51] DEQ, Response to Public Comments, Permit No. 192-05C (May 12, 2014), at Pages 45 to 48, **Exhibit 25.**

[52] *SDEIA v. MDEQ et al*, Wayne County Circuit Court, Case No. 14-008887-AA (filed July 10, 2014).

[53] *See* Proposed Consent Decree, Appendix A (listing Feb. 24, 2009, violation notice as among those released).

[54] Between stack testing in 2008 and the new permit issuance in May 2014.

As detailed below, SDEIA objects to the proposed Consent Decree because it does not improve air quality in the surrounding neighborhoods: it does not require the facility to reduce its emissions, and the things it does require, the company is already doing. As such, it is not fair, adequate, reasonable, or in the public interest.

1. The ESP will continue to cause pollution in the affected neighborhood.

The First Claim for Relief in the governments' complaint alleges that the company caused visible emissions at the ESP in violation of the opacity limit its operating permit and state and federal law "on various dates during the past five years," as identified in 11 violation notices.[55] Collectively, those violation notices identify thousands of ESP opacity violations since 2010. In addition to those 11 notices, DEQ issued violation notices in April and October 2014 that include an additional 249 instances of ESP opacity violations.[56] As noted above, ESP opacity violations date back even further, to at least 1997, as cited in the 1998 and 2002 consent agreements.[57] Opacity is a proxy for particulate pollution, and these opacity violations result in excess emissions of particulates and toxic pollutants,[58] which contribute to the high levels of air pollution in the neighboring communities.

With respect to the ESP, the proposed Consent Decree requires the facility to comply with an Operations & Maintenance Plan (O&M Plan), review continuous monitoring data,

[55] Complaint, Par. 45.

[56] April 14, 2014, and October 27, 2014, Violation Notices, **Exhibit 13**.

[57] 1998 Final Order by Consent, **Exhibit 15.**

[58] *See* Report from W. Koucky (June 2015), **Exhibit 26.**

identify the cause of any violations, and have the ESP inspected annually by a third-party consultant.[59]

These requirements are not adequate to ensure the ESP will operate in the future without opacity violations and in continuous compliance with its permit limits.[60] As described below, the ESP does a poor job removing the fine particulates that are shown to be emitted from the ESP, and that are adversely impacting the neighbors' air quality. In addition, the company has not shown the ESP can operate in compliance with its permit limits and requirements. The company's ESP stack testing, which ostensibly shows compliance with permit limits, is not reliable to show future compliance because the testing does not show how the ESP will operate at normal or permitted operating conditions. Moreover, the 249 opacity violations cited since the stack testing belie the promise of future compliance.

Furthermore, it is not fair to the affected community, nor is it in the public interest, to absolve the company of thousands of ESP opacity violations – following a decade of prior ESP opacity violations – without requiring the company to address the actual cause of the ESP problems. The neighboring communities have breathed the consequences of 17 years of ESP opacity and emissions violations; the proposed Consent Decree tells them they must await more monitoring, violations, and investigations before the facility is made to fix this equipment. For these reasons, SDEIA objects to the proposed Consent Decree.

---

[59] Proposed Consent Decree, Par. 19 to 22.

[60] The Clean Air Act requires facilities to comply with emissions limitations on a continuous basis. 40 U.S.C. § 7602(k). *See also* EPA, Clean Air Act National Stack Testing Guidance (April 27, 2009), at Page 14, **Exhibit 27.**

a. The ESP is not designed to capture fine particulates efficiently.

The Dearborn Works' ESP was built in 1964, even before the Clean Air Act was enacted in 1970.[61] At that time, air quality standards were concerned about "total" particulates, and the ESP was designed to capture those.[62] Health science has since taught that the size of the particles is linked to their potential for causing health problems, with particular concern for smaller particles that pass through the throat and nose and enter the lungs, affecting the heart and lungs and causing serious health effects.[63] EPA has responded to the science by adjusting air quality regulations.[64] In 1987, EPA replaced the "Total Suspended Particulate" standard with the "PM-10" standard, which regulates particulates with a diameter of 10 micrometers or less. The new standard focuses on even smaller particles, less than 2.5 micrometers in diameter, which lodge deeply in the lungs and have been associated with premature mortality, respiratory and cardiovascular disease, asthma, and many other problems.[65]

---

[61] Koucky Report, **Exhibit 26.**

[62] *Id.* "Particulate matter is the term for solid or liquid particles found in the air. Some particles are large or dark enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope." Early air quality standards looked at "Total Suspected Particulate", which refers basically to any particle that is found in the air. *See generally*, EPA, Particulate Matter (PM-10), http://www.epa.gov/airtrends/aqtrnd95/pm10.html (last visited June 19, 2015).

[63] *See* EPA, Particulate Matter (PM), available at http://www.epa.gov/airquality/particlepollution/, last visited June 19, 2015.

[64] EPA, Particulate Matter (PM-10), available at http://www.epa.gov/airtrends/aqtrnd95/pm10.html, last visited June 19, 2015.

[65] *See* EPA, PM-2.5 Implementation, available at http://www.epa.gov/ttn/naaqs/pm/pm25_index.html, last visited June 19, 2015.

As explained in the report by Walter Koucky, Senior Air Project Manager,[66] an ESP is a poor choice of control technology for the Dearborn Works Basic Oxygen Furnace. The facility's ESP has a low "Specific Collection Area" (SCA), which is the ratio of collection electrodes in the ESP to the gas flow through the ESP, in comparison to modern ESPs designed for fine particulate control.[67] The calculated SCA of the Dearborn Works ESP is 298; EPA recommends an SCA of up to 800 for efficient removal of fine particulate matter.[68] This low range SCA indicates the ESP is inefficient as fine particulate control equipment.

In addition, ESPs do not perform well at collecting fine and condensable particulates. Condensable particulates are particulates that are in the form of a vapor or gas at stack temperature, but that condense to a liquid or solid at cooler temperatures (when they exit the stack), and form fine particulates that contribute to impaired air quality. The Dearborn Works ESP operates poorly to capture condensable particulates in part because the ESP operates at a very high temperature (550 F). By not taking the gas stream that passes through the ESP down to a reasonable temperature for condensation (*e.g.,* 200 F), condensable particles remain gaseous and escape uncollected and uncontrolled by the ESP. The Dearborn Works ESP is not designed to control condensable particulates, which are a significant contributor to fine particulate and other pollutants.[69]

---

[66] Resume of Walter Koucky, **Exhibit 28.**

[67] Koucky Report, Section A, **Exhibit 26.**

[68] *Id.*

[69] *Id.*

In addition, the batch nature of steel-making make the ESP a poor choice for fine particulate control.[70] During each 40-minute cycle in the Basic Oxygen Furnace, the temperature, moisture, gas flow, and other variables surge and change significantly and rapidly. The conditions of peak pollution, temperature, moisture, and flow all occur at the same time. The ESP is not designed to control such fluctuations and peaks.[71]

In short, the ESP performs worst at collecting the pollutant of greatest concern – fine (respirable) particulates. As noted above, the Dearborn monitor in the neighborhood school documents the highest levels of these particulates in the state.

b. *There is no showing the ESP can comply while operating at permitted limits.*

In April 2013, AK Steel performed stack tests at the ESP to demonstrate it operates in compliance with permit requirements.[72] Since the stack test, the facility has been cited for 249 opacity violations at the ESP.[73] The pattern of non-compliance shows the ESP to be a serial violator, and also shows the stack testing is not a reliable indicator of the equipment's ability to operate in compliance with its permits.

On behalf of SDEIA, Mr. Koucky reviewed the facility's stack test reports and identified significant concerns related to whether the test was performed properly and represented normal

[70] *Id.*; *see also* Severstal, *Manganese Control Technology Report* (October 1, 2012), at Pages 7-8 (discussing challenges associated with use of ESP, given the batch nature of steel-making), **Exhibit 29**.

[71] Koucky Report, Section A, **Exhibit 26.**

[72] Severstal Dearborn LLC, *Emission Measurement Compliance Report, BOF BH & ESP Outlet Stacks* (May 2013) **Exhibit 30.**

[73] April 15, 2014, and October 27, 2004, violation notices, **Exhibit 13.**

operating conditions.[74] Stack testing is performed for a few hours every several years and provides a snapshot of emissions during controlled operating conditions. If testing conditions are not representative of permit conditions, then the value of the testing is compromised – the test only shows how equipment performed during test conditions. EPA stack test guidance recommends testing at conditions that "are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition."[75] That has not been done at the Dearborn Works ESP.

Steel production is a batch chemical reaction where nearly every input and output can be manipulated. The inputs into the Basic Oxygen Furnace process affect the emissions that result from that batch – for example, less manganese in the charge materials (which may be corrected or refined during other stages) effects the measured manganese emissions at the stack. Essentially all emissions can be controlled by processing high quality scrap (finished steel) instead of low-quality scrap that may be more representative of normal operations.[76]

In addition, steel-making is a batch process on a 40-minute timeframe (tap to tap), with periods of higher (peak) emissions during charging and the oxygen blow. Loading, temperature, moisture, and gas flow peak for only about half the tap cycle. Stack testing measures emissions for an hour and averages them into an hourly rate, so temperature and flow rate peaks may be

[74] Koucky Report, **Exhibit 26.**

[75] *Id.*; *see also* EPA Clean Air Act National Stack Testing Guidance (April 27, 2009), at Page 14, **Exhibit 27.**

[76] Koucky Report, **Exhibit 26.**

timed to reduce average hourly emissions during testing. This is another opportunity for the stack test to show compliance that may not represent actual operating conditions.[77]

It further appears operations during stack testing were staged to avoid both basic oxygen furnaces charging, blowing, or tapping at the same time. The taps were operating at an offset, so flows to the ESP were limited as though only one of the furnaces operated at a time. This avoided challenging the ESP and instead optimized performance. We are not aware of a condition or requirement that prevents the company from operating both furnaces at the same time during normal operations. When it does so, the load to the ESP will increase, and its performance will likely decrease.[78]

In addition, stack testing was conducted at significantly less than of its allowable daily production rate. In 2008, one of the Blast Furnaces, which provides molten iron to the Basic Oxygen Furnace, was destroyed and has not been rebuilt. Though Dearborn Works is permitted to operate the two Blast Furnaces, when operational, the currently-idle furnace will significantly increase the load to the Basic Oxygen Furnace and decrease ESP efficiency. The stack testing measured emissions during production levels below the levels that are permitted when the second Blast Furnace is operating. This makes the stack tests an unreliable basis to conclude the equipment will operate in compliance with permit limits. [79]

---

[77] *Id.*

[78] *Id.*

[79] *Id.*

c. There are feasible options to remedy the ESP, but the proposed Consent Decree would not require any of these.

There are multiple ways the ESP could be made to comply with its permit limits and reduce opacity violations. At a minimum, the facility should be required to operate consistently with how it operated during stack testing – *i.e.*, only one Blast Furnace operating, offsetting the two basic oxygen furnaces, capped at testing production levels, and so on. There is nothing in the proposed Consent Decree (in the O&M Plan or otherwise) that requires Dearborn Works to operate the ESP consistent with how it operated during the stack testing. To the contrary, the facility's permits allow it to operate at a higher production level, higher capacity, with both basic oxygen furnaces charging at the same time, and without limiting additives as during testing. At best, the stack testing showed compliance under testing conditions, so it should operate under testing conditions – unless and until it performs further stack testing that shows compliance under conditions more representative of permitted operating conditions. Beyond controlled testing conditions, the ESP has not demonstrated its present or future ability to remain in continuous compliance with permit limits.

In addition, the company may upgrade the ESP to make it more efficient. One way to do so would be to add a wet ESP (WESP), which adds water vapor to improve how the ESP captures fine and condensable particulates. The Dearborn Works ESP already contains additional, vacant fields in each of its eight chambers, which may be used at relatively low cost to add a polishing WESP to the existing ESP.[80] In addition, in 2006, an EPA-commissioned study identified increasing the size of the ESP by adding an additional collection cell as a way to

[80] *Id.*

improve the ESP to reduce fine particulate emissions.[81] The company identified other feasible upgrades that could be undertaken to improve the ESP– such as installing turning vanes and distribution plats, synchronizing the varying flue gas flow rates and particulate loadings to compensate for the batch-type operation of the Basic Oxygen Furnace, and increasing the electrical power to the ESP.[82] The proposed Consent Decree requires none of these things.

2. Most of the provisions in the Consent Decree are already required of AK Steel.

Much of what the proposed Consent Decree imposes on the company is monitoring and maintenance measures that are already undertaken by AK Steel – voluntarily or by law. As such, the proposed Consent Decree imposes no new requirements to improve air quality in the affected neighborhoods.

The proposed Consent Decree requires AK Steel to draft an Environmental Management System (EMS) Manual and hire an independent auditor to perform EMS Audits every six months. An EMS Manual is a document that describes the overarching policies, procedures and programs related to emissions sources that have been the subject of a violation.[83] The 1998 Consent Order imposed a similar requirement on the company to create an environmental management system (the "Q-101 Compliance Program"), albeit only for the ESP.[84] In addition, the concept of an EMS, and auditing an EMS by a certified auditor, is found in the ISO 14001

[81] *Evaluation of PM2.5 Emissions and Controls at Two Michigan Steel Mills and a Coke Oven Battery* (2006), **Exhibit 31.**

[82] Severstal, *Manganese Control Technology Report* (October 1, 2012), at Pages 7-8, **Exhibit 29.**

[83] Proposed Consent Decree, p.6, Par VI.12.a.

[84] 1998 Consent Order, **Exhibit 15**.

program. The International Standards Organization (ISO) created a set of requirements for an environmental management system that enables an organization to develop and implement a policy to account for its environmental obligations and deal with non-compliance.[85] As described in the proposed Consent Decree, the EMS requirement largely replicates the ISO 14001 EMS program. The proposed Consent Decree requires that an EMS Audit "shall be conducted in accordance with ISO 14001" by an independent EMS Auditor "who meets the qualification requirements of ISO 14001".[86] While AK Steel is not currently required by law to implement an EMS, it already does so voluntarily. According to the company, all of its facilities are ISO 14001 certified. [87] The same was true of the facility while under Severstal's ownership.[88] As such, while the EMS provisions in the proposed Consent Decree impose a new *legal* obligation on AK Steel, the requirement mirrors the 1998 ESP requirement program, and the ISO 14001 program already in place at AK Steel – albeit with added oversight from EPA and DEQ.[89] It seems unlikely this program will result in new compliance outcomes at the facility.

---

[85] *See* ISO 14001:2004, available athttp://www.iso.org/iso/home/standards/management-standards/iso14000.htm, last viewed May 29, 2015.

[86] Proposed Consent Decree, p. 7, Par. VI.A.16, 17.

[87] "[A]ll AK Steel plants have received ISO 14001 environmental management certification, and the company employs a full-time environmental staff to manage environmental compliance throughout the corporation." Available at http://www.aksteel.com/company/environment/, Last viewed May 29, 2015.

[88] **Exhibit 32** (excerpt from Severstal North America 2004 ISO 14001 Internal Audit).

[89] The 1998 Consent Order (**Exhibit 15**) which imposed a similar management system requirement on the facility for operation of the ESP, also required annual reporting to the regulator.

The proposed Consent Decree also requires AK Steel to comply with the Operations and Maintenance (O&M) procedures for the Electrostatic Precipitator (ESP) in its Appendix C. Federal law already requires the facility to develop and comply with an O&M plan for the ESP.[90] The Dearborn Works operating permit also requires it to comply with an O&M plan for the ESP.[91] The DEQ Permit to Install also requires the Facility to create and comply with an O&M Plan for the ESP.[92] By its own terms, the document at Appendix C is a "roadmap" to the O&M procedures for the ESP that "directs interested parties to the appropriate written operational control document contained in the facility document management system." Thus, the proposed Consent Decree requirement to update and comply with the ESP O&M appears duplicative of requirements already imposed by federal law, permits, and the company's operating manuals, and does not appear to impose any new O&M requirements that the facility does not already have to do.

The proposed Consent Decree requires AK Steel to review the Continuous Opacity Monitoring data each quarter, identify the cause of each instance in which opacity exceeds 20%, and take corrective action to respond to the cause of each exceedance.[93] This is consistent the Dearborn Works permit requirement to identify each exceedance, investigate the cause of the

[90] 40 CFR 63.7800(b)(1)-(7) ("You must prepare and operate at all times according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in § 63.7790(b). Each plan must address [monthly inspections, preventative maintenance, operating limits, corrective active procedures, and procedures for determining and recording production rates].").

[91] DEQ ROP No. 199700004, Table E-01.04, **Exhibit 33.**

[92] DEQ PTI 182-05C, EUBOF III.3, **Exhibit 34.**

[93] Proposed Consent Decree, Par 20.

exceedance, identify corrective action to prevent a recurrence of the exceedance, and send a report to DEQ within 14 days.[94]

The proposed Consent Decree requires AK Steel to hire a third-party to annually inspect its ESP.[95] Federal law already requires AK Steel to inspect the ESP monthly,[96] and the company has hired a third party to do so for several years.[97]

The proposed Consent Decree also requires the company to comply with a Fugitive Dust Control Plan for Slag Handling, as outlined in Appendix D.[98] The Plan identifies control measures to be implemented at the slag pits and slag runways. For slag pits, the control measures include using water spray, with potassium permanganate added to the water, and requires monthly inspections to ensure the operational condition of the sprays. For the runways, the control measures require wetting the slag to minimize emissions, inspecting the water sprayers monthly, and taking a Visible Emissions observation test every two weeks for 15 minutes. For both processes, the Plan prohibits dumping more than 2 feet above the side board

[94] DEQ PTI 182-05C, EUBOF, VII. Reporting, Par 3, at Page 52, **Exhibit 34.**

[95] Proposed Consent Decree, Par 21.

[96] 40 CFR 63.7800(b)(1), 7834(a)(1).

[97] TRK Engineering Services, Inc, *BOF Electrostatic Precipitator Chambers 1-8 Fall 2013 Repairs* (Jan. 27. 2014), at Page 1 ("TRK Engineering Services, Inc. was retained by Severstal Dearborn, LL to inspect the BOF electrostatic precipitator (ESP) Chambers 1-8 and oversee routine maintenance and as-needed repairs during the Fall of 2013 (September – November)."), **Exhibit 35**; TRK Engineering Services, Inc., *BOF ESP Chambers 1-3 Structural Repairs* (April 7, 2014), **Exhibit 36.**

[98] Proposed Consent Decree, Par. 23, Appendix D.

of the truck. With minor differences, the facility's operating permit already requires the company to comply with each of these control measures.[99]

3. The remaining provisions in the Consent Decree are not adequate, fair, reasonable, or in the public interest.

There are two components of the proposed Consent Decree that impose new obligations on the company: the civil penalty requirement, and the Supplemental Environmental Project (SEP) to install air filters in the local schools.

The civil penalty requires the company to pay $1,353,126 to the government treasuries. It may be noted that the 2006 Consent Order required the company to pay $900,000. That is $1,061, 629 in current dollars, using the CPI inflation calculator. The new penalty is less than $300,000 more than the last penalty. Given the extent of violations, the regulator's prior rhetoric (escalating enforcement against such an egregious facility and rumors of criminal charges), and the absence of real emission reduction requirements in the proposed Consent Decree, the penalty is inadequate.

The school filtration system will reduce exposure to air pollution for part of the affected population – some school children and teachers – during school hours. But it is not enough to offset the harm to the whole community resulting from the six years of exceedances.

[99] DEQ ROP No. 199700004,Table E-02.01 (Slag Pits) (requiring monthly inspection of water spray systems, and installation of potassium permanganate or equivalent agency quenching system – there is no certified visible emission observation requirement here); Table E-02.02 (Runway) (requiring watering system at runway and quarterly certified visible emissions observation –there is no requirement to inspect this watering station); Table B2 (Requirements for Pit and Furnace Area) (requiring non-certified visible emission observations every 5 days during March through October, and prohibiting drop heights of more than 2-feet above sideboard of trucks), **Exhibit 33.**

In media outlets, the agreement is touted with a nod to the fact that the facility is under new owners who have a commitment to operating the plant in "an environmentally responsible manner."[100] AK Steel bought the facility in September 2014, after the enforcement, citizen suit, and permit appeal cases were underway, presumably with knowledge of these facts.[101] Without knowing the details of the purchase transaction, one may presume the buying company negotiated a purchase price to reflect the selling company's compliance history and enforcement uncertainty and risks. Moreover, this change in ownership is irrelevant to the harm the community suffered from the last six years of violations, which the proposed Consent Decree is intended to remediate. To give the new company any enforcement favor would undermine the public health impacts to the affected community and send the message that "bygones" can be erased by asset sale. Neither of these results are fair or in the public interest.

CONCLUSION

Given the scope of violations, the poor air quality in their neighborhood, and the environmental justice interests in the community, SDEIA hoped the government enforcement action to resolve thousands of violations against the largest contributor would achieve meaningful improvements at the AK Steel facility. Instead, the proposed Consent Decree

---

[100] *See Detroit Free Press, Dearborn steel plant to pay $1.35M fine to settle alleged violations* (May 20, 2015), available at http://www.freep.com/story/news/local/2015/05/20/steel-plant-penalty/27646815/, last visited July 8, 2015; *AK Steel to Pay $1.3 Million Civil Penalty as Part of Settlement with United States and Michigan for Air Violations at Dearborn Steel Plan,* (May 20, 2015), available at *http*://www.justice.gov/opa/pr/ak-steel-pay-13-million-civil-penalty-part-settlement-united-states-and-michigan-air**,** last visited July 8, 2015**.**

[101] *See AK Steel Completes Acquisition of Severstal Dearborn,* (Sept. 16, 2014), available at http://www.aksteel.com/news/press_release.aspx?doc_id=1070, last visited July 8, 2015.

requires the community to await more violations from this facility before real changes might be required. This is unreasonable, inadequate, and unfair, and it is not in the public interest. SDEIA therefore opposes the proposed Consent Decree.

Respectfully Submitted,

Olson, Bzdok & Howard, p.c.
Attorneys for SDEIA

Date: July 10, 2015

/s/ Christopher M. Bzdok

By:_____

Christopher M. Bzdok (P53094)
Emerson Hilton (P76363)

Law Office of Tracy Jane Andrews, PLLC
Co-Counsel for SDEIA

Date: July 10, 2015

/s/ Tracy Jane Andrews

By:_____

Tracy Jane Andrews (P67467)