



State Registration Number

A8640

Michigan Department of Environmental Quality  
Air Quality Division

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number

MI-ROP-A8640-2016

**AK Steel Dearborn Works**

SRN: A8640

Located at

4001 Miller Road, Dearborn, Wayne County, Michigan 48120

Permit Number: MI-ROP-A8640-2016

Staff Report Date: June 6, 2011

Amended Date: June 15, 2016

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) requires that the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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State Registration Number

A8640

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Air Quality Division

## RENEWABLE OPERATING PERMIT

JUNE 6, 2011 - STAFF REPORT

ROP Number

MI-ROP-A8640-201

### Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a ROP pursuant to Title V of the federal Clean Air Act of 1990 and Michigan's Administrative Rules for air pollution control pursuant to Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

### General Information

Stationary Source Mailing Address:	14661 Rotunda Drive P.O. Box 1699 Dearborn, Michigan 48120-1699
Source Registration Number (SRN):	A8640
North American Industry Classification System (NAICS) Code:	331111
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	200900065
Responsible Officials:	Section No. 1 – Severstal Dearborn, LLC Bruce L. Black, Vice President and General Manager 313-317-8955  Section No. 2 – Edw. C. Levy Co. Thomas A. Smith, General Operations Manager 313-429-2600
AQD Contact:	Katherine R. Koster, Environmental Engineer 313-456-4678
Date Permit Application Received:	April 14, 2009
Date Application Was Administratively Complete:	April 17, 2009
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	June 6, 2011
Deadline for Public Comment:	July 6, 2011

## Source Description

Severstal Dearborn, LLC (Severstal) operates an integrated steel mill at the Rouge Industrial Complex in Dearborn, Michigan. The Rouge Industrial Complex is located at 3001 and 4001 Miller Road in Dearborn, Michigan (Wayne County). The complex is bounded by Rotunda Drive on the north, Miller Road on the east, Dix Avenue and Rouge River on the south, and Schaefer Road on the west. Severstal operations occupy approximately 500 acres on the southern half of the complex and include, but are not limited to, two blast furnaces with C Blast Furnace operating and B Blast Furnace undergoing repairs to date, a basic oxygen furnace shop, two continuous casters, a hot strip mill, and cold mill operations. The plant produces sheet steel that is used in a variety of manufacturing applications. Ford Motor Company operates the remainder of the complex. The area is mainly industrial, and the nearest residence is approximately 1500 ft east of Miller Road. Severstal is independent of the Ford Motor Company and is an autonomous producer of steel.

Edw. C. Levy Co., Plant 6 operates a slag processing operation on Severstal property under a separate Title V permit. The process plant extracts metals and other materials from the slag which are either returned to the Severstal plant for reuse or sold to external markets. The slag is crushed and screened to produce different sizes of finished product. Edw. C. Levy Co., Plant 6 by virtue of its operation, is located on the Rouge property, and is entirely dependent on Severstal slags for its raw material. It is also a support facility of the Severstal primary activity as it was installed primarily to process Severstal slags.

The blast furnace slag pit and the runway slag watering station are also Levy processes but those are included in Severstal's Title V permit as Section 2 as agreed between the two companies.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2010** submittal.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	16,260
Lead (Pb)	0.09
Nitrogen Oxides (NO <sub>x</sub> )	611
Particulate Matter (PM)	319
Sulfur Dioxide (SO <sub>2</sub> )	651
Volatile Organic Compounds (VOCs)	40
<b>Individual Hazardous Air Pollutants (HAPs) **</b>	
HCL	19

\*\*As listed pursuant to Section 112(b) of the federal Clean Air Act.

See Parts C and D in the draft ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

## Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is located in Wayne County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants except for Annual and 24 hour PM<sub>2.5</sub> standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because:

- The potential to emit carbon monoxide, nitrogen oxide, sulfur dioxide, volatile organic compounds, and particulate matter exceeds 100 tons per year.
- The potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is more than 10 tons per year and/or the potential to emit of all HAPs combined are more than 25 tons per year.
- The source is subject to 40 CFR Part 63, Subpart FFFFF – National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel manufacturing Facilities.

The stationary source was subject to review under the Prevention of Significant Deterioration regulations of CFR 40 PART 52.21, because at the time of New Source Review permitting the potential to emit of each criteria pollutant was greater than 100 tons per year.

There have been changes to Severstal operations and equipment since issuance of the initial ROP. These changes include issuance of air use Permit to Install (PTI) No. 182-05 for the installation of a modified C Blast Furnace and Casthouse, new Baghouse for air pollution control of the C Blast Furnace, new Baghouse for secondary air pollution control of the BOF Shop, and for miscellaneous modifications to the C Blast Furnace stove, BOF Shop, Desulfurization Process, and equipment for handling, processing, and storage of coal for blast furnace operation. However, as of June 6, 2011, equipment for pulverizing coal on site, as allowed under PTI No. 182-05B has not been installed. All emission units in the stationary source have undergone an appropriate evaluation for toxic emissions as required under Rule 225 during the permit 182-05 review. The permit to install has undergone two modifications thereafter and is now PTI No. 182-05B. The waste oxides reclamation facility, EGWASTEOXREC, has been removed from the ROP renewal because the equipment has been dismantled.

Severstal also received an air use Permit to Install No. 8-08 for a new pickle line, tandem cold mill, and hot dip galvanizing line, but the construction of the equipment has not yet been completed at the time of this ROP renewal application.

WCAQMD Consent Orders 0030-97 and 0041-97 have been terminated and are no longer required to be referenced as an applicable requirement in the ROP renewal application. Where these Consent Orders were the only referenced applicable requirement in a condition, the condition has been removed in the ROP renewal. However, some conditions from the terminated Consent Orders were agreed upon with the company to remain and have additional applicable requirements listed such as Rule 336.1213(3), Rule 336.1901, and/or R336.1910 in the renewal ROP.

EPA Consent Decree Civil Action Nos. 00-75452 and 0075454 have been terminated and are no longer required to be referenced as an applicable requirement in the ROP renewal application. Where these Consent Decrees were the only referenced applicable requirement in a condition, the condition has been removed in the ROP renewal. However, some of the removed conditions require the facility to retain the required records for three years after termination of the Decree.

MDEQ, AQD Consent Order No. 6-2006 was issued March 21, 2006 and is still in effect. The requirements contained in this Consent Order have been incorporated into the ROP renewal. The company submitted a request on April 15, 2011 to terminate the order. However, the order remains in effect until the request is granted by the AQD. Consent Order SIP No. 30-1993 revised September 9, 1994, and Consent Order No. 9-2010 are still valid and the requirements have been retained.

Consent Order SIP 18-1993, Revised September 9, 1994 is still in effect and the requirements in this Consent Order are retained in Section 2 of the ROP.

The stationary source is subject to the Maximum Achievable Control Technology Standards for Integrated Iron and Steel Manufacturing Facilities promulgated in 40 CFR, Part 63, Subpart FFFFF – National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities which took effect in May 22, 2006.

The facility's acid pickling line and hydrochloric acid storage tanks (EUPICKLINSRUBS and EUHCLSTORAGESTRU) at the stationary source are subject to the Maximum Achievable Control Technology Standards for Steel Pickling promulgated in 40 CFR Part 63, Subpart CCC which took effect in June 22, 2001.

EUSCREENHOUSEEMGEN, EUCBFTUYERECOOLINGEMGEN, EUCBFHEARTHSTAVECOOLING EMGEN, EUCBFBOSHSTOVECOOLINGEMGEN, EUWSACEMGEN, EUCBFDRILLEMGEN, and EUCBFSCRWTREMGEN, at the stationary source are subject to the Maximum Achievable Control Technology Standards for Reciprocating Internal Combustion Engines promulgated in 40 CFR, Part 63, Subparts A and ZZZZ. EUFIREPUMP and EUSCREENHOUSEY2K were installed in 1999 and are not subject to 40 CFR Part 63 Subpart ZZZZ.

EUSCREENHOUSEEEMGEN at the stationary source is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR, Part 60, Subparts A and IIII.

Requirements contained in 40 CFR Part 60, Subpart Na have not been added to the applicable requirements for the Desulfurization process (EUDESULF) because the new desulfurization skimming process has not yet been installed.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the MDEQ "Procedure for Evaluating Periodic Monitoring Submittals."

None of the installed emission units at the stationary source are subject to the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR, Part 64, because the emission limits and/or standards are addressed by the Iron and Steel MACT (40 CFR Part 63, Subpart FFFFF) and the HCL Pickling MACT (40 CFR Part 63 Subpart CCC) which were proposed after November 15, 1990 as required to meet the exemption in 40 CFR 64.2(b)(1)(i).

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

**Source-wide Permit to Install (PTI)**

Rule 214a requires the issuance of a Source-wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. 199700004 are identified in Appendix 6 of the ROP.

PTI Numbers			
C-5062	C-6532, C-6709	C-7924, C-8400	193-00
142-97	C-11578, C11579	343-97	463-97
C-11710, and C-11713 thru C-11724			

### **Equivalent Requirements**

This permit does not include any equivalent requirements pursuant to Rule 212(5). Equivalent requirements are enforceable applicable requirements that are equivalent to the applicable requirements contained in the original PTI, a Consent Order/Judgment, and/or the State Implementation Plan.

### **Non-applicable Requirements**

Part E of the draft ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the draft ROP pursuant to Rule 213(6)(a)(ii).

### **Processes in Application Not Identified in Draft ROP**

The following table lists processes that were included in the ROP application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

<b>Exempt Emission Unit ID</b>	<b>Description of Exempt Emission Unit</b>	<b>ROP Exemption</b>	<b>PTI Permit Exemption</b>
EUCOLDCLEANERS	Parts washers	R336.1212(4)(a)	R336.1281(h)
EUMAINTPAINTSP	Maintenance paint spray booth	R336.1212(4)(g)	R336.1290
EUBOFLIMERECEIVI	Basic Oxygen furnace lime unloading station and baghouse	R336.1212(4)(g)	R336.1290
EUCOKEUNLOADEE	Coke unloading EE Building	R336.1212(4)(g)	R336.1290

### **Draft ROP Terms/Conditions Not Agreed to by Applicant**

This permit does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

### **Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements at the time of issuance of the ROP except for requirements listed in Appendix 2 of the draft ROP. The table in Appendix 2 of Section 1 (1-2) and Section 2 (2-2) contains a Schedule of Compliance developed pursuant to Rule 119(a)(i). The applicant must adhere to this schedule and provide the required certified progress reports at least semiannually or in accordance with the schedule in the table. A Schedule of Compliance for any applicable requirement that the source is not in compliance with at the time of permit issuance is supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

### **Action taken by the MDEQ**

The AQD proposes to approve this permit. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA) is allowed up to 45 days to review the draft permit and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Lynn Fiedler, Division Chief. The final determination for ROP approval/disapproval will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number

A8640

**RENEWABLE OPERATING PERMIT**

**MARCH 2, 2012 STAFF REPORT  
ADDENDUM**

ROP Number

MI-ROP-A8640-2016

**Purpose**

A Staff Report dated June 6, 2011, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Section No. 1 – Severstal Dearborn, LLC Bruce L. Black, Vice President and General Manager 313-317-8955
	Section No. 2 – Edw. C. Levy Co. Thomas A. Smith, General Operations Manager 313-429-2600
AQD Contact:	Katie Koster, Environmental Engineer 313-456-4678

**Summary of Pertinent Comments**

The Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) received the following comments from Severstal Dearborn LLC and the general public during public hearing conducted on July 12, 2011, and during the public comment period from June 6, 2011 to July 6, 2011:

**Comment 1:**

The environmental justice plan for DEQ highlights “meaningful involvement” from the community as an important element. The draft ROP and associated documents for the Severstal ROP renewal are lengthy and technically complex. Commenter requested funding to hire a technical advisor to comment on behalf of the community. Also, commenter requested additional community information meetings much further in advance of hearing so individuals can prepare comments more thoroughly.

**AQD Response 1:**

The AQD staff is available throughout the public comment period to answer questions and provide information to concerned citizens. Staff contact information is provided in the ROP documents. Furthermore, there is no regulatory requirement or funding available for the AQD to hire a technical advisor for the community.

**Comment 2:**

MDEQ should review the components of the December 2010 fallout mitigation plan submitted by Severstal with the community as fallout is a major concern for the community.



AQD Response 2:

Components of this plan were presented and discussed during the ROP informational meeting held on July 12, 2011 from 6:00 – 7:00 p.m. The plan is part of the Schedule of Compliance in the ROP Appendix 2-1 and 2-2.

Comment 3:

The fugitive dust control plan is inadequate as it does not contain provisions for preventing collectate in the debris pile from becoming a fugitive dust issue and does not require dust contained in roll off boxes to be covered to prevent fugitive dust.

AQD Response 3:

The AQD agrees that the fugitive dust plan should be more explicit in addressing these items. Facility has updated their fugitive dust plan. The fugitive dust plan is a separate document from the ROP. Facility updated fugitive dust plan to clarify that the rolloff boxes are enclosed. Facility responded via email on 8/9/2011 that the debris pile is “added to and shipped from on almost a daily basis so it would not be practical to treat with dust suppression.” However, facility added a statement that “adequate steps to prevent collectate from air pollution control equipment from becoming fugitive dust will be taken such as mixing with water at the pile or adding water when necessary.”

Comment 4:

General Condition No. 25 references Rule 912. There is a concern that the reporting requirement under Rule 912, which allows up to 2 business days to report certain start up, shut down, malfunctions, and abnormal conditions poses a potential health risk to the community and that there should be immediate reporting to DEQ. Commenter understands that the rule may need to be changed instead of the permit but believes there should be a reconsideration of the rule.

AQD Response 4:

The AQD has no legal basis for changing regulations through the ROP renewal process. Additionally, if a situation arose that would present a health risk to the community the AQD would not be the appropriate agency to provide this notification to the public.

Comment 5:

On page 41, EUCBFCASTHOUSE, Section VI. Monitoring/Recordkeeping, the permit is unclear on whether the facility is required to operate a COMS or bag leak detection system. A request for clarification as to which type of monitoring is required was made.

AQD Response 5:

Per the federal regulations (the Integrated Iron and Steel Manufacturing MACT, 40 CFR Part 63 Subpart FFFFF), permittee has the option of operating under either scenario. As such, applicable conditions for each scenario were included in the permit. In the event that the facility decides to change method of compliance, the ROP does not have to be reopened as the applicable requirements for both scenarios are already present. Currently, the facility is operating EUCBFCASTHOUSE with a bag leak detection system.

Comment 6:

Requested an overview presentation be given before the ROP public hearing to explain major changes, corrective measure to address fallout, and monitoring and reporting.

AQD Response 6:

This information was provided in the informational session held on July 12, 2011 from 6:00 – 7:00 p.m. before the public hearing

Comment 7:

Commenter is concerned that emissions from Severstal have potential to cause respiratory problems. The staff report makes no reference that Severstal test data found increased emissions and based on those results Severstal requested increased levels. Commenter requested that the results of recent test data be examined in conjunction with the ROP and that the cumulative emissions levels from the various components be examined collectively in order to gauge an accurate idea of the impact of the emissions.

AQD Response 7:

The ROP process is not the appropriate forum for establishing/revising emission limits. Appendix 2-1 of the draft ROP renewal references the emission limits that the company exceeded during stack testing. As such, the facility was issued several violation notices and referred to the AQD Enforcement Unit. A schedule of compliance is in the ROP, as required by the regulations (Rule 336.1213(4)(b)), when a facility is not in compliance with all the terms and conditions of the ROP at the time of issuance. Company submitted a permit to install application, PTI No. 182-05C, to revise emission limits which is currently being evaluated, along with the testing data, by the AQD Permit Staff. This evaluation will include analysis of emissions limits in conjunction with health based screening levels. Any potential changes in allowed emission limits would occur in the PTI No. 182-05C, not this ROP renewal.

Per state regulations, emissions are not evaluated cumulatively but on an emission unit basis.

Comment 8:

Commenter is concerned that the ROP includes several items, including the Hydrogen Sulfide (H<sub>2</sub>S) Monitoring Protocol that allow Severstal to be "self policing". Commenter is requesting assurance that measures are in place to monitor, test, and maintain records to ensure compliance with existing limits. Residents in the area are experiencing health effects from high levels of H<sub>2</sub>S.

AQD Response 8:

The purpose of an ROP is to ensure that adequate testing, monitoring, and recordkeeping provisions to demonstrate compliance with applicable limits are in the permit. At this time, the AQD believes the draft renewal contains adequate measures. Additionally, while the H<sub>2</sub>S Monitoring Protocol will be implemented by Severstal and Levy, both companies are required to document and maintain records of their investigations. The companies must certify under penalty of law that these records are true, accurate, and complete. In the event of an alleged H<sub>2</sub>S odor complaint, the AQD would also conduct an independent investigation.

Comment 9:

Commenter mentioned two outstanding consent orders and a May 2010 violation notice for fallout. Commenter believes the draft ROP renewal does not account for the May 2010 violation and requested that total emissions from this facility are taken into consideration before the ROP is granted.

AQD Response 9:

The ROP process is a vehicle for ensuring that all applicable requirements (ARs), as defined in R 336.1101(o), are appropriately applied to an air pollution source in a single document and that compliance with these requirements is assured [40 CFR §70.6(a), MCLS §324.5506(6), R 336.1213(2)]. Applicable requirements include conditions contained in active consent orders, such as 6-2006, 9-2010, 30-1993, and 18-1993. No new or revised emission limits can be imposed in this process. In cases where the facility is in non-compliance at the time of ROP issuance, a schedule of compliance, with required progress reports, is included in the ROP. In this case, facility is allegedly in violation of Rule 901 for fallout (which includes the May 2010 violation notice) and a schedule of compliance is in Appendix 1-2 and 2-2. Additionally, outstanding violations, including the May 2010 violation notice, have been escalated to the AQD Enforcement Unit and will be resolved through a consent order.

Comment 10:

State needs to seriously consider performing a cumulative impacts analysis for the area due to the high number of air quality permits being issued.

AQD Response 10:

The review process being sought by the commenter is not within the scope of the ROP process. The ROP process is a vehicle for ensuring that all applicable requirements (ARs), as defined in R 336.1101(o), are appropriately applied to an air pollution source in a single document and that compliance with these requirements is assured [40 CFR §70.6(a), MCLS §324.5506(6), R 336.1213(2)]. R 336.1213 lists the content that the AQD may include in an ROP which encompasses all applicable requirements and the necessary monitoring, recordkeeping, reporting, and other conditions to determine the status of compliance of the stationary source. Additionally, current air toxics regulations do not require a cumulative impact review for a Permit to Install. As stated earlier, the facility emission limits and other applicable requirements (such as control technology requirements) are established based on certain criteria and parameters utilizing the most current State and Federal regulations at the time of the application process and as evaluated through New Source Review (NSR).

Comment 11:

Concern about large red, orange, and black releases lasting from 1 to 10 minutes with zero transparency observed quite often from the Basic Oxygen Furnace and other stacks. Several dates in April 2011 were given as an example. Is Method 9 testing being done, are Method 9 protocols being followed, and do the monitors show visual emissions and does the recordkeeping show how often releases happen? Facility should not be able to police themselves and should have strict recordkeeping and more stack testing requirements.

AQD Response 11:

The ROP requires the facility to conduct Method 9/9C readings (a.k.a. visible emission readings) for many of the processes on site and to maintain records of all of the readings and make them readily available for the AQD review. Method 9 requires that the reader obtain certification every 6 months to ensure the proper protocol is being followed.

There are no emission measurement monitors for sources of fugitive emissions, i.e. emissions not released from a stack, such as fugitive dust, emissions from roof monitors, and other building openings. Stack testing is impractical for fugitive emissions as they are intermittent and unplanned. As such, compliance is demonstrated through visible emission readings. The draft ROP renewal has increased the frequency of the visible emissions readings required at the Basic Oxygen Furnace (BOF) to address concerns of on going visible emissions incidents. Additionally, when an opacity violation is observed, the facility is required to initiate corrective actions. The draft ROP renewal now has additional recordkeeping requirements that the facility document the cause and corrective actions taken when an opacity violation is observed.

To address the commenter's concerns regarding visible emissions from BOF stacks, weekly Method 9 visible emissions readings during one complete heat, which includes oxygen blowing, have been added for the Electrostatic Precipitator stack (ESP). Additionally, a requirement to develop and implement a Malfunction Abatement Plan (MAP) under Rule 911 for the ESP was also added.

Severstal is required by AQD Consent Order 6-2006 to operate and maintain numerous cameras positioned outside and inside of the BOF. Also, per the consent order and ROP, operators in the BOF are required to initiate corrective actions as soon as possible and maintain a log of the cause and corrective action taken when they observe excess visible emissions on the cameras. To address concerns about visible emissions from the BOF, these requirements have been maintained in the draft ROP renewal and a citation of R 336.1213 ("Rule 213") has been added so that they will exist beyond termination of the Consent Order.

The secondary baghouse stack and desulfurization baghouse stack at the BOF building are required, under the federal regulation (40 CFR Part 63, Subpart FFFFF), to be equipped with bag leak detection devices which are programmed to detect increases in particulate in the exhaust air exiting the baghouse. If visible emissions are a problem, it will be detected with this technology as particulate matter creates visible emissions.

Comment 12:

There is a pattern of equipment problems. Are there adequate monitors and records of incidents of equipment malfunctions that cause emissions such as furnace slips, bleeder openings, and damper malfunctions?

AQD Response 12:

Per state and federal regulations, facilities are required to operate under a Start up, Shut down, and Malfunction Abatement Plan to minimize emissions during these instances which includes recordkeeping and reporting requirements. Regarding the bleeder stacks on the blast furnaces, while there are no monitors required, this draft ROP renewal includes a new requirement that the company maintain a log of all openings.

Facilities are also required to report certain malfunctions under the criteria outlined in R 336.1912 ("Rule 912"). However, not all malfunctions meet the criteria of Rule 912. The AQD does not have the authority to revise the rules through the ROP process.

Comment 13:

Commenter referred to an incident on February 21, 2011 that the facility did not report to the AQD and believes this incident demonstrates a problem with reporting.

AQD Response 13:

The February 21 incident was a visible emission incident involving beaching iron. To address the commenter's concerns, the draft ROP includes a new requirement that the facility perform visible emission readings during beaching when possible and maintain a log of all beaching events, including the duration and reason.

Comment 14:

Commenter believes stack testing once every 5 year is crazy and that evidence exists that testing should be conducted more frequently.

AQD Response 14:

A single stack test over a five-year period is the standard stack test required for ROP sources. Under General Condition 13, the AQD can require more frequent stack testing if the AQD deems it necessary. Also the Iron and Steel MACT Standard requires testing twice per permit term, or once every two and half years for certain emission units. In the interim, the company is required to continuously operate a Continuous Opacity Monitor on the ESP stack, Continuous Emission Monitor on the stove stack, and bag leak detection systems on multiple stacks which continuously monitor the exhaust to detect changes in particulate levels in an exhaust stack. Stack testing is impractical for fugitive emission sources as previously stated in Response 11. As such, these emissions are monitored visually on a routine basis (Method 9/9C readings) and records are required to be maintained. To address citizen concerns, the draft ROP renewal has increased the frequency of visible emission monitoring at emission points that have potential for visible emissions.

Comment 15:

Forty plus fallout samples taken from February 20, 2010 to July 1, 2011, by the MDEQ and Global Community Monitor indicate the presence of metals which point to steel making operations. Some samples taken and analyzed by G. C. Monitors show a substantial amount of lead well above guidelines

set by HUD for exterior surfaces. This indicates an on going problem. Are these incidents considered to be fugitive dust?

AQD Response 15:

Fallout from industrial facilities can be caused by multiple reasons, including fugitive dust. The AQD has not been provided with G.C. Monitor results that allegedly show high levels of lead. Fallout is regulated under AQD Rule 901 (R 336.1901). Rule 901 does not specify emission limits for any criteria pollutants, nor any other regulated pollutants. Rule 901 states, in part, that “a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants...injurious effects to human health or safety...or unreasonable interference with the comfortable enjoyment of life and property.” The AQD has attributed some of the AQD samples results to Severstal/Levy operations and deemed the companies to be in violation of Rule 901. The violations have been escalated to the AQD Enforcement Unit and Severstal will be obtaining a consent order to address these violations. In the meantime, the facilities have submitted a schedule of compliance to address the fallout which is included in Appendix 1-2 and 2-2.

Comment 16:

Commenter requesting stronger laws and stiffer violations and that Severstal should be responsible for the costs of testing fallout samples.

AQD Response 16:

The AQD has no regulatory authority to require the company to pay for testing. The ROP process is not the appropriate forum for addressing/changing laws, regulations, and/or enforcement penalties.

Comment 17:

Commenter requested that if the proposed fallout mitigation plan/schedule of compliance is inadequate, the AQD require the company to correct the problem.

AQD Response 17:

As previously mentioned, in addition to the schedule of compliance, Severstal has been escalated to the AQD Enforcement Unit and will be entering into a Consent Order to resolve the fallout violations. If the proposed fallout mitigation plan is inadequate after implementation, the facility will be required to implement additional corrective measures and be may be subject to additional fines and penalties through the enforcement process.

Comment 18:

On page 5 of the staff report, commenter questioned the significance of pulverizing coal on site and the difference in equipment being allowed versus being required?

AQD Response 18:

On site pulverizing of coal is a business/operational decision made by the facility and is not required by AQD regulations. However, if the facility wants to be “allowed” to pulverize coal on site, instead of purchasing it from a vendor, a permit to install is needed. The company obtained PTI No. 182-05B which includes an allowance to install and operate equipment to pulverize coal on site. The significance of not pulverizing on site at this time is that the associated emissions which were accounted for in the permit to install are not being generated.

Comment 19:

Commenter questioned PTI No. 8-08 and the meaning of installation and reporting for equipment not yet installed. How significant is it to have or not to have installed, or constructed, or operationalized this equipment? What is the impact on air quality, if any? In terms of reporting to the MDEQ, the permitting body, why has it not taken place?

AQD Response 19:

Since the company has already obtained a permit for the equipment covered under PTI 8-08, the air quality impacts have already been evaluated and accounted for through the permit process. Since the operations have not commenced, no reporting is yet required.

Comment 20:

Commenter expressed concerns over fallout and odors and questioned whether AQD staff has sampled inside residents homes and wants to know the impact of fallout on the residents.

AQD Response 20:

As the AQD has the authority to regulate outdoor/ambient air, the AQD typically does not sample inside of a residence. However, numerous outdoor fallout samples have been collected. The AQD attributed some of these samples to Severstal/Levy operations. The companies were issued violation notices and now have a pending enforcement action as well as Schedule of Compliance which is included in Appendix 1-2 and 2-2 of the ROP renewal. At this time, there are no outstanding odor violations.

Comment 21:

Commenter referred to a February 21 incident where facility excuses were managerial and supervision. The greater concern is what is Edw. Levy's responsibility is getting the slag properly disposed? Is it Levy's or Severstal's responsibility to monitor the pile up of too much slag? Whose responsibility was it to report this occurrence to MDEQ – Severstal or Levy's?

AQD Response 21:

As described in a previous response, the February 21 incident involved visible emissions associated with beaching. To address the commenter's concerns, the draft ROP includes a requirement for the facility to take visible emissions readings during beaching and maintain a log of all beaching events, regardless of if readings were taken, reason, etc.

Companies are required to report certain incidents to the AQD within a 2 day timeframe under R 336.1912 but this incident did not meet the criteria for required reporting.

Comment 22:

Commenter referred to a March 15, 2011 violation notice for improper operation of the Electrostatic Precipitator (ESP) Continuous Opacity Monitoring System (COMS). In reviewing the company's explanation in steps taken to determine where/what was the cause in the difference in the monitor readings and personnel readings, it would appear that the monitoring system and/or the evaluation of data are not what would be expected to be best industry practice. Requesting a more reliable monitoring system should be priority for the MDEQ and the company.

AQD Response 22:

Facility adequately addressed the issue with the COMS in their response to the violation notice and it does not appear to be ongoing. In the ROP, the facility is required to report the operational status of the COMS on a quarterly basis and perform an annual audit to verify proper operations. When properly operated, COMS systems have been demonstrated to be very reliable.

Comment 23:

Commenter has concerns about current emission limits and how they were set. Commenter questions how Severstal can state in the May 2009 technology evaluation that they are already using baghouses at both blast furnaces and desulf which is the most efficient control for filterable PM and metal emissions when the company failed some emission limit testing.

AQD Response 23:

Particulate emissions from operations at Severstal include both a filterable and condensable portion, including the blast furnace and desulfurization operations referenced in the comment. While baghouses

are generally highly efficient for controlling filterable emissions above a certain size, the efficiency is significantly lower for condensable particulate. Based on the recent stack testing results, in general, the company did not meet the emission limits due to the significant condensable portion of the particulate emissions. Many of the emission limits, including specific metals and filterable and condensable particulate are currently under review as part of the PTI No. 182-05C application that was submitted by the facility to address exceedances of some limits. If the company cannot meet the required emission limits allowed under state and federal law (for both filterable and condensable particulate), additional control measures and/or operational restrictions will be required in the revised permit.

### **Comments received from Severstal Dearborn LLC**

#### **Comment 24:**

Emission Limit Tables — Monitoring/Testing Column. A number of entries in the Monitoring/Testing Method column in Section I for various tables reference operating and monitoring requirements such as visible emission observation requirements or baghouse pressure drop requirements. This presents the potential implication that non-compliance with the referenced requirement (i.e. visible emission requirements or pressure drop requirements) is determinative that there is an exceedance of the emissions limits in Table I for which such monitoring and/or operating requirements are referenced, such as for particulate matter grain loading limits. This is a false implication. For example, baghouse pressure drop could be lower than normal at times when there is little or no flow through the baghouse, and thus in circumstances where there is no particulate matter emission limit exceedance. Similarly, a failure to conduct a visible emissions reading, or an observance of excess opacity, does not represent an exceedance of a grain loading standard. We understand that the Section I cross-references to such monitoring and operating requirements to help serve as a basis on which to demonstrate compliance. Based on the understanding that any non-compliance with such referenced monitoring or operating requirement will not be deemed non-compliance with the referencing Section I emission limit, we are willing to accept the cross-references in the draft ROP.

#### **AQD Response 24:**

As previously discussed with the facility, the conditions cross referenced in the Monitoring/Test Method column of the Emission Limit Table, are those conditions that are necessary to provide a reasonable assurance of continuous compliance with the associated emission limits outside of stack testing. This is also the position of EPA as baghouse pressure drop monitoring is the method for demonstrating continuous compliance with the associated emission limits in the Iron and Steel MACT per 63.7833(c).

However, the AQD understands that there are certain situations, such as the examples given in the above comment, that would not necessarily constitute violations of the associated emission limit.

#### **Comment 25:**

“Test Protocol” is listed in many of the Time Period/Operating Scenario columns in Section I for numerous emission units. Unlike our existing ROP, no test methods are specified. In the future, when testing protocols and methodologies are identified for the various emissions testing required under the ROP, it is critical that the testing protocol ultimately used be consistent with methodologies used in deriving the underlying permit limit. Any other approach would be inappropriate. For example, any requirement that would measure compliance with a particulate matter emission limit derived as a filterable limit by measuring both filterable and condensable emissions would constitute an unauthorized and inappropriate revision and reduction in the relevant emissions limit. It is our understanding that the MDEQ is not intending the use of the “Test Protocol” references to be a mechanism to revise underlying permit limits.

#### **AQD Response 25:**

The ROP renewal process cannot be used to revise underlying emission limits and therefore the AQD does not intend, nor have the authority, to use “Test Protocol” as a mechanism to revise permit limits. AQD agrees that the test protocol used to show compliance with a limit should be consistent with the

methodology used to derive the limit. The AQD permit staff generally does not specify the test methods for pollutants in the permit conditions to allow flexibility to use the most appropriate methods at the time each test is conducted. Test methods to be used must be approved by the AQD prior to the test being conducted as specified in each permit condition that requires emission testing. As such, test protocol was listed in PTI No. 182-05B and was incorporated into the ROP renewal.

Comment 26:

Time Period/Operating Scenario: A provision is included in multiple emission unit tables where compliance with a limit is to be based on a 12-month rolling average. Specifically, in such instances the permit states that compliance is “as determined at the end of each calendar month”. This will confirm our understanding from our discussion with you that this language is a stipulation regarding how to perform the mathematical calculations to determine compliance, but is not a requirement that such calculation must actually be conducted on the last day of each month. Instead, compliance calculations are to be conducted on a timely basis consistent with the recordkeeping and reporting provisions of the ROP.

AQD Response 26:

As previously discussed with the facility, the AQD agrees that compliance calculations are to be conducted on a timely basis consistent with the recordkeeping and reporting provisions of the ROP.

Comment 27:

Design Parameter Issue — Prior to the issuance of the draft ROP for public comment, Severstal submitted a number of comment letters that addressed the question of the design parameters listed in the permit, and the fact that prior drafts of the ROP inappropriately listed design parameters for pollution control equipment, such as design air temperature and design air flow, in a manner that could be misinterpreted as imposing limits based on such design parameters and/or making such design parameters enforceable requirements. After discussing this issue with Bernie Sia of the AQD, later versions of the draft ROP addressed this issue by moving these parameter listings from their original placement in Section VIII (Stack/Vent Restrictions) to Section IV (Design/Equipment Parameters). The proposed draft ROP, however, notates the design/equipment parameter listings with a footnote 2, indicating such are state only enforceable. However, this notation incorrectly implies that the design parameters are limitations or requirements that are enforceable. We understand that the MDEQ’s response on this issue is that the design parameters are set forth in an underlying PTI and therefore must be repeated in the ROP. We disagree, in that the design parameters are merely descriptive of the source, and not operating requirements or restrictions in and of themselves. As such, they are not underlying applicable requirements. For example, please see how design parameters were treated in our original (and current) ROP and in PTI No. 182-05B. However, we are willing to accept the recitation of design parameters in the renewal of the ROP under the express understanding that they merely descriptive of the listed sources, and are not enforceable operating requirements.

AQD Response 27:

As previously discussed with the facility, design parameters and associated underlying applicable requirements (UARs) are present in PTI No. 182-05B in the stack/vent parameters tables. As such, these conditions are required to be included in the ROP as the permit should include all applicable requirements. Furthermore, conditions originating from a permit to install subsequently require a footnote per federal and state regulations (R 336.1214a(3)). The facility must submit a permit to install application to request removal of these conditions.

Comment 28:

Pressure Drop Requirements: For a number of baghouse controlled sources, the ROP requires both compliance with the manufacturer’s instructions for the baghouse and compliance with a specified



pressure drop range. These are duplicative and potentially inconsistent requirements. Additionally, given the applicable MACT requirements for monitoring of baghouse operating conditions, establishing a fixed pressure drop for such baghouses is inappropriate and inconsistent with the flexibility granted by the MACT standard. It is our understanding that these overlapping but potentially inconsistent requirements for the baghouse operation are not intended to present a situation where compliance with both elements at the same time is impossible, nor should they be interpreted as such.

AQD Response 28:

As previously discussed with the company, the AQD and EPA consider pressure drop to be an indicator of baghouse performance and a basis for compliance with emission limits outside of routine stack testing. Federal regulations, specifically the Iron and Steel MACT (40 CFR Part 63 Subpart FFFF), require pressure drop to be maintained within the “normal range identified in the manual” and monitored daily. Pressure drop ranges in the draft ROP renewal were provided by the facility and should be reflective of this “normal range” and should not present an inconsistent situation.

Per state regulations, Rule 910 requires an air-cleaning device be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law. The AQD considers maintaining pressure drop within a certain range to be demonstrative of properly functioning baghouse.

Comment 29:

Bag Leak Detection Alarm Corrective Actions: Several tables have identical recordkeeping requirements for corrective action in response to bag leak detection system alarms, based on 40 CFR 63.7842(d) and 40 CFR 63.7833(c)(1). However, this requirement is listed in different sections from table to table. Specifically, it is listed in Section VI for EULADLEREFINE1 and EULADLEREFINE2, while it is in Section V for EUBBFCASTHOUSE, EUCBFCASTHOUSE, EUREDLADLINGBOF, EUDESULFURIZATN and FGBOFSHOP. We suggest that the requirement should be listed consistently in each section, and would suggest that inclusion in Section VI “Monitoring/Recordkeeping” rather than Section V “Testing/Sampling” would be more logical.

AQD Response 29:

The AQD agrees that it should be consistent and will include the requirement in VI. Monitoring/Recordkeeping for EUBBFCASTHOUSE, EUCBFCASTHOUSE, EUREDLADLINGBOF, EUDESULFURIZATN and FGBOFSHOP.

Comment 30:

The Table of Contents (TOC) is missing listings for: EUPICKLINGSCRUBS (page 85), EUANNEALFURNACES (page 89), FGBOFSHOP (page 99), FGSREHEATFURN123 (page 104), and Appendix 1-9 Fugitive Dust Control Plan (page 123)

AQD Response 30:

The AQD agrees and will update the TOC.

Comment 31:

Source-Wide Conditions: In Sections VI.3 and IX.4 of Section 1 of the ROP, and Sections VI.3 and IX.3 of Section 2 of the Permit, the Source-Wide Conditions tables of the ROP impose conditions based on a portion of Rule 406, regarding hydrogen sulfide. However, Rule 406 is specific to refineries, as Rule 406(1) specifically regulates “refinery process gas streams”. Severstal does not operate a refinery, and therefore Rule 406 does not apply. This conclusion is consistent with the conclusion apparently made by the MDEQ upon issuance of the initial ROP for Severstal’s facility. Rule 406 is based on a Wayne County ordinance that was SW approved and was part of the state SIP in 2004 when the initial ROP was issued. Since the ROP was required to include all applicable requirements, the decision not to include the SIP approved hydrogen sulfide requirements from the predecessor ordinance was equivalent to a

finding that the facility was not subject to these requirements. There is no basis to change that conclusion now. Accordingly, Rule 406 should not now be included in the ROP. Additionally, Rule 406(2) is vague and ambiguous, poses difficult issues with respect to compliance, compliance certification and enforcement, and is duplicative of other applicable requirements. In particular, Rule 406(2) is severely lacking in specificity as to its implementation, making it both effectively unenforceable and problematic from the standpoint of certifying compliance. Rule 406(2) also fails to identify an appropriate test methodology to evaluate compliance. As such, it is effectively unenforceable, in contravention of Rule 205 (R336.1205), which prohibits the MDEQ from imposing emission limits in permits unless the emission limits are “enforceable as a practical matter.” Rule 406(2) is effectively void for vagueness. It does not provide fair or adequate notice as to its requirements or allow a regulated facility to determine what conduct or circumstances are prohibited. As such, it violates due process. In the spirit of cooperation with the MDEQ, Severstal has agreed to implement a Hydrogen Sulfide Monitoring Protocol. However, Severstal does not waive any arguments as to the inapplicability and unenforceability of Rule 406(2).

AQD Response 31:

The AQD does not agree with commenter. Rule 406(2) reads: “(2) When the odor of hydrogen sulfide is found to exist beyond the property line of a source, a person in Wayne county shall not cause or allow the concentration of hydrogen sulfide to exceed 0.005 parts per million by volume for a maximum period of 2 minutes.” The rule does not confine the regulation to a particular type of source.

Additionally, Rule 406 was incorporated into the State Implementation Plan (SIP) in 2008 as indicated in Part 4 of the Air Pollution Control Rules, not 2004 as incorrectly stated by the commenter. As such, this occurred after issuance of the initial ROP in 2004. Furthermore, no documentation was provided by the facility to demonstrate that the AQD expressly determined Severstal was not subject to this regulation.

While the AQD recognizes that the facility has numerous concerns about the wording of the regulations, the ROP renewal process is not the appropriate forum to change regulatory language. The purpose of ROP is to include all applicable requirements for a facility in one document which includes Rule 406(2) in this case.

Comment 32:

EUBOF

- a. In Section VI.23 (page 66), the cross-reference in the second sentence should be to VI.22, not VI.23.
- b. In Section VI.29 (page 66), the reference to beaching should be clarified by adding the word “iron”, so that the permit reads “beaching iron.”
- c. In Section VII.6, which is a reporting requirement based on the MDEQ Consent Order 6-2006, It should be clarified that the exceedance reporting applies only to exceedances at the BOF Roof Monitor only. We suggest that this requirement read: “The permittee shall prepare a report for each exceedance at the BOF Roof Monitor of the opacity limit in Section 1.4 in which it shall. . .

AQD Response 32:

The AQD agrees and will make the changes.

Comments received from Edw. C. Levy Co.

No comments received.

Changes to the June 6, 2011 Draft ROP

During the AQD review, the following changes were made:

On page 1, decision maker changed to Lynn Fiedler, AQD Division Chief

On page 5, added a reference to Levy SIP CO 18-1993

On pg. 58, EUDESULFWATERING, revised emission limit in Section I.3 from a 20%, 6 minute average to a 3 minute average from the BOF roof monitor. BOF roof monitor emissions are limited by state (Rule 336.1364(2)) and federal regulations (40 CFR Part 63 Subpart FFFFF) to 3 minute average. There is no basis for a less stringent 6 minute average. This appears to have been an error.

On pg 62, EUBOF, conditions 9 and 10 were removed as Consent Order 6-2006 modification was approved by the AQD.

Changes based on comments:

Updated Table of Contents to include EUPICKLINGSCRUBS (page 85), EUANNEALFURNACES (page 89), FGBOFSHOP (page 99), FGSREHEATFURN123 (page 104), and Appendix 1-9 Fugitive Dust Control Plan (page 123)

For all EU's with the identical recordkeeping requirements for corrective action in response to bag leak detection system alarms, based on 40 CFR 63 .7842(d) and 40 CFR 63.7833(c)(1), this requirement has been placed in Section VI. Monitoring/Recordkeeping for consistency.

For EUBOF, VI.23, changed the cross-reference to VI.22, not VI.23.

For EUBOF, VI.29, added the word "iron" after beaching

For EUBOF, VII.6, clarified that the condition requires a report when there is a BOF Roof Monitor exceedance

For EUBOF, added Condition EUBOF, VI.30, requiring visible emission readings of the ESP stack:  
"30. The permittee shall perform a Method 9 certified visible emission observation of the ESP stack at least once a week during operation for a minimum of one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1213(3))**"

For EUBOF, expanded condition III.6 which now reads: The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan for the BOF vessels and the associated emission control system. This plan shall also include the malfunction abatement plan (MAP) information specified in Rule 911(2), for operation of the ESP. An updated SSM/MAP shall be submitted to the AQD District Supervisor for review and approval within 60 days of ROP issuance. **(R 336.1910, R 336.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b) and 40 CFR 63.6(e)(3))**

State Registration Number

A8640

**RENEWABLE OPERATING PERMIT**  
**APRIL 22, 2016 STAFF REPORT ADDENDUM**

ROP Number

MI-ROP-A8640-2016

**Purpose**

A Staff Report dated June 6, 2011, was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the proposed ROP during the 45-day EPA comment period as described in R 336.1214(6). In addition, this addendum describes any changes to the proposed ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Section No. 1 – Severstal Dearborn, LLC Bruce L. Black, Vice President and General Manager 313-317-8955  Section No. 2 – Edw. C. Levy Co. Thomas A. Smith, General Operations Manager 313-429-2600
AQD Contact:	Katie Koster, Senior Environmental Engineer 313-456-4678

**OVERVIEW**

After the EPA 45 day review ended on April 16, 2012, this ROP renewal was put on hold due to outstanding violation notices at the facility and the schedule of compliance contained in the proposed ROP was no longer adequate. These violations were formally resolved when the facility entered into a Consent Decree (Civil Action No. 15-cv-11804) in August 2015. As such, this ROP renewal is now proceeding with the issuance of the ROP (MI-ROP-A8640-2016). The AQD has addressed the EPA 45 day comments in this staff report addendum as described below. The ROP is being issued to AK Steel Dearborn Works as this company assumed operations in 2014 (formerly Severstal Dearborn LLC).

There are 6 active permits to install (PTI's) that are not included in this ROP renewal. The reasons are that these permits were either issued after the public comment period began or the equipment was not installed at the time the ROP draft went out for public comment which was June 6, 2011. All of these permits will be incorporated via the ROP modification procedures in Rules 336.1216 and 336.1217.

The permits are below:

Permit*	Equipment	Issuance Date	Comment Period	Hearing Date
182-05C**	No new equipment - Emission limit corrections	May 2014	Feb 12 – March 19, 2014	March 19, 2014
20-14	New machine scarfer	September 2014	July 16 – August 17, 2014	August 27, 2014
70-13 (issued to Edw. C. Levy Co.)	New desulfurization slag watering station	September 2013	August 7 – September 9, 2013	No hearing requested
8-08	New pickle line, tandem cold mill, and hot dip galvanizing line	February 4, 2008	No comment period	NA
8-08A	One emergency generator	August 15, 2011	No comment period	NA
84-11	One emergency generator	August 15, 2011	No comment period	NA
<p>*Regardless of their inclusion in the ROP, the facility is still subject to the requirements in these permits. If a condition of the PTI contradicts a condition of the ROP, the source needs to comply with the PTI condition. These permits can be found at the following website: <a href="http://www.deq.state.mi.us/aps/FinalConditions.shtml">http://www.deq.state.mi.us/aps/FinalConditions.shtml</a></p> <p>** On July 14, 2014, the DEQ received an Appeal of the Decision to issue PTI No. 182-05C by the South Dearborn Environmental Improvement Association, Inc., Detroiters Working for Environmental Justice, United Citizens of Southwest Detroit, and Sierra Club. Appellants make multiple claims and request the permit be remanded to the DEQ. It is identified as Wayne County Circuit Court Case No 14-008887-AA.</p>				

After ROP issuance (MI-ROP-A8640-2016), the AQD will follow the modification procedures in Rule 336.1216(1)(a)(v) to incorporate PTI Nos 182-05C, 20-14, and 70-13. These permits already had public comment periods that meet the public participation requirements for future administrative amendments (modifications) to the ROP. This was stated in the published notice of hearing (NOH) for each permit.

The proposed timeline to incorporate these permits and issue a modified ROP is as follows:

1. Issue MI-ROP-A8640-2016
2. Within 14 days, modify MI-ROP-A8640-2016 to include PTI Nos 182-05C, 70-13, and 20-14. Send modified draft of ROP (MI-ROP-A8640-2016a) to AK Steel to review for accuracy (not for comment). Provide a review period of no more than 7 working days
3. Send proposed permit to EPA for 45 day review
4. Address comments from EPA and issue modified ROP within 30 days

For those permits that did not have a public comment period (8-08, 8-08A, and 84-11), the ROP will be reopened for cause per Rule 336.1217(2)(a) and the AQD will follow the same procedures as an initial ROP issuance, including the procedures for public participation and review by affected states and EPA. Comments shall only be taken on those parts of the ROP that were revised to include PTI's 8-08, 8-08A, and 84-11. This will result in ROP version MI-ROP-A8640-2016b. The proposed timeline to incorporate these permits and issue MI-ROP-A8640-2016b is as follows:

1. Issue MI-ROP-A8640-2016a

2. Within 14 days, modify MI-ROP-A8640-2016a to include PTI Nos 8-08, 8-08A, and 84-11. Send modified draft of ROP (MI-ROP-A8640-2016b) to AK Steel to review. Allow AK Steel no more than 30 days to review and comment.
3. Address AK Steel comments within 7 days. Commence a 30 day public comment period (comments can only be made on conditions from 8-08, 8-08A, and 84-11) and schedule a hearing if requested
4. Respond to public comments and revise ROP if needed within 30 days
5. Send to EPA for 45 day review
6. Address comments from EPA and issue within 30 days

One additional future permitting action that is known to the AQD at this time is related to the Consent Decree Civil Action No. 15-cv-11804. Per the terms of the Consent Decree, Civil Action No. 15-cv-11804, paragraph 26, an application shall be submitted by AK Steel prior to termination of the decree to incorporate certain injunctive relief provisions into a permit to install and into the ROP. The Consent Decree will be in effect for a minimum of 5 years from the effective date of August 2015. The facility must comply with all provisions of the Consent Decree regardless of whether they are in the ROP.

Issuance of this ROP (MI-ROP-A8640-2016) will start the clock on the 5 year renewal cycle.

### **Summary of Pertinent Comments – Section 1**

Comments were received on April 12, 2012 during the 45-day EPA comment period and are summarized below.

#### **Comment 1**

The visible emission (VE) and opacity limits on pages 19, 21, 23, 27, 33, 38, 45, 49, 53, 58, 61, 70, 74, 78, 97, 102, 137, and 139 have requirements for ve or Method 9 observations on a biweekly basis, monthly basis, or quarterly basis. In some cases, only a testing method is specified without a frequency. In light of the public concerns expressed about zero-transparency plumes and the requirement at 40 CFR 70.6(c)(1) for "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit," we recommend that the permit record include an analysis of the sufficiency of the aforementioned observation and testing requirements to assure compliance with the VE and opacity limits. If the observation and testing requirements are not sufficient, we recommend that their required frequency be increased to the point that they yield sufficient data to assure compliance.

#### **AQD Response 1:**

EUCOALHANDLING, EUCOKESCRNBLDGDD, and EURAWMATHANDLING (pgs. 19, 21, and 23) are all minor material handling sources controlled by a baghouse and historically, they have not been a source of visible emissions. Monthly visible emissions observations combined with required routine inspections and pressure drop monitoring are sufficient to ensure compliance.

EUBFCASTHOUSE (pg 27) – B blast furnace is not currently in operation due to a catastrophic failure. Upon commencement of operation, a bag leak detector, continuous pressure drop monitoring and routine baghouse inspections to ensure proper operation of the control device are required in the Integrated Iron and Steel MACT (Subpart FFFFF) and are in the ROP. VE observations from the baghouse stack are required monthly. In addition, PTI No. 182-05C was issued on May 12, 2014 and certified VE readings have been increased from monthly to weekly for the roof monitor and stove stack. As such, the frequency of VE observations is sufficient in light of all of the other monitoring.

EUBBFBLEEDERS (pg 33) and EUCBFBLEEDERS (pg 45) – Bleeders are typically closed under “normal” operation. As such, a scheduled recurring visible emissions reading is not appropriate for these emission sources.

EUCBFCASTHOUSE (pg 38) – In PTI No. 182-05C, certified VE readings have been increased from monthly to weekly for the roof monitor and stove stack. The VE observations for the baghouse stack are required monthly. In addition, a bag leak detector, continuous pressure drop monitoring and routine baghouse inspections to ensure proper operation of the baghouse control device are required in the Integrated Iron and Steel MACT (Subpart FFFFF) and are in the ROP. As such, the frequency of VE observations is sufficient in light of all of the other monitoring.

EURELADLINGBOF (pg 49) – Visible emissions readings are required for the baghouse and roof monitor. PTI No. 182-05C has greatly increased the frequency of VE readings of the roof monitor from one hour per week to six hours per week. In addition to monthly VE’s of the baghouse stack, a bag leak detector, continuous pressure drop monitoring and routine baghouse inspections to ensure proper operation of the control device are required in the Integrated Iron and Steel MACT (Subpart FFFFF) and are in the ROP. As such, the frequency of VE observations is sufficient in light of all of the other monitoring.

EUDESULFURIZATN (pg 53) – Visible emissions readings are required for the baghouse and roof monitor. PTI No. 182-05C has greatly increased the frequency of VE readings of the roof monitor from one hour per week to six hours per week. In addition to monthly VE’s of the baghouse stack, a bag leak detector, continuous pressure drop monitoring and routine baghouse inspections to ensure proper operation of the control device are required in the Integrated Iron and Steel MACT (Subpart FFFFF). As such, the frequency of VE observations is sufficient in light of all of the other monitoring.

EUDESULFWATERING (pg 58) – This process no longer occurs as described in the ROP. A desulfurization watering station has been installed per PTI No. 70-13 and issued to Edw. C. Levy and has not yet been incorporated into the ROP.

EUBOF (pg 61) - PTI No. 182-05C contains greatly increased the VE monitoring of the BOF roof monitor as described above. Additionally, the ESP is covered in Consent Decree Civil Action No 15-cv-11804 entered into on August 21, 2015. This Consent Decree has a more robust inspection and preventative maintenance program designed to prevent visible emissions problems from the ESP and is required to be incorporated into the Title V permit prior to termination. As such, the frequency of VE observations is sufficient in light of the additional inspection and maintenance requirements.

EULADLEREFINE1 (pg 70) and EULADLEREFINE2 (pg 74) - Historically, visible emissions from the roof monitors and baghouses have not been a source of problems or complaints. However, certified VE’s have been increased to once a week for the roof monitors per PTI No. 182-05C. Additionally, the baghouses are subject to bag leak detector requirements, pressure drop monitoring, and inspections per the Integrated Iron and Steel MACT (Subpart FFFFF) and in the ROP. As such, the frequency of VE observations is sufficient in light of all of the other monitoring.

EUVACUUMDEGASSER (pg 78) – CO is the pollutant of concern. The degasser is controlled by a flare; there have not been any observed VE’s by the AQD or complaint received regarding particulate matter. The quarterly VE monitoring should be sufficient as well as the existing daily checks that the pilot is lit.

FGBOFSHOP (pg 97) – Already covered above in EUBOF.

FGREHEATFURNACE123 – These are natural gas fired furnaces that should not be problem sources of particulate emissions. Existing monthly VE observations should be adequate.

EUBLSTFCESLAGPIT (pg 137) and EURUNWAYS LAGWTR (pg 139) – Additional requirements for managing fugitive dust and visible emissions are now covered under Consent Decree Civil Action No. 15-cv-11804 effective on August 21, 2015. This Consent Decree is required to be incorporated into the Title V permit prior to termination.

Comment 2:

The following requirement is on pages 16 and 135: When the odor of hydrogen sulfide (H<sub>2</sub>S) is found to exist beyond the property line of Severstal Dearborn, LLC, the permittee shall not cause or allow the concentration of H<sub>2</sub>S to exceed 0.005 parts per million by volume (ppmv) for a maximum period of 2 minutes. (R 336.1406(2)) Because the affected residents are significantly concerned about odor, we believe the permit record should clarify how the odor of H<sub>2</sub>S is defined and distinguished from other odors, how far beyond the property line the provision applies, and how compliance with the 0.005 ppmv H<sub>2</sub>S limit will be demonstrated while it is in effect. In light of the public concerns, we would also like you to consider making the limit always applicable instead of applicable only when odor is detected.

AQD Response 2:

Changes to Rule 406, such as when it is applicable, have to be made through rule making and cannot be made through the ROP process. In the proposed ROP, the AQD included the requirement to implement and maintain an H<sub>2</sub>S monitoring protocol. The purpose of this protocol is to address how the odor will be identified and how compliance will be demonstrated. The protocol is posted on the DEQ website at [http://www.deq.state.mi.us/aps/downloads/ROP/pub\\_ntce/A8640/](http://www.deq.state.mi.us/aps/downloads/ROP/pub_ntce/A8640/).

Comment 3:

Pages 19, 23, 27, 38, 53, 61, 70, 74, and 97 have Particulate Matter (PM) limits (expressed as grains per dry standard cubic foot or pounds per hour) with VE observations and/or pressure drop used as a compliance method. However, a direct correlation between compliance with the PM limits and VE or pressure drop has not established in the permit record. We believe the permit record should be amended to establish this correlation.

AQD Response 3:

Opacity (as determined through visible emissions observations) is a well established surrogate for PM as it is comprised of particulate matter. This is stated in the preamble to the Integrated Iron and Steel MACT among other places. Pressure drop monitoring is also a common well established method of ensuring a baghouse is operating within the appropriate range that was established during a compliant stack test. It is also a requirement in the continuous compliance section of the Integrated Iron and Steel MACT. A properly operating and maintained baghouse should be able to meet the particulate matter limits.

Comment 4: The following emission limits use monthly fuel records, and/or stack test-based emission factors for compliance. In light of citizen concerns about insufficient stack testing and the requirement for monitoring sufficient to assure compliance at 40 C.F.R. § 70.6(c)(1), we recommend that the permit record include an analysis of the sufficiency of the fuel records and/or emission factors to assure compliance with the emissions limits. If the fuel records and/or emission factors are not sufficient, we recommend that improved monitoring methods such as Continuous Emissions Monitoring Systems be used to assure compliance.

<b>Page</b>	<b>Emission</b>	<b>Limit</b>
25	NO <sub>x</sub>	36 lb/hr
25	NO <sub>x</sub>	136.6 tpy
25	S <sub>02</sub>	70.9 lb/hr
25	CO	661.1 lb/hr
38	NO <sub>x</sub>	9.77 tpy



AQD Response 4:

The NOx, SO2, and CO limits on pg. 25 are applicable to the B blast furnace stove stack. At this time, the B blast furnace is not in operation. PTI 182-05C, issued in May 2014, requires an SO2 Continuous Emissions Monitoring System (CEMS) to be installed within 180 days after start up. This PTI has not yet been incorporated into the ROP. For the NOx and CO hourly limits, stack testing is required at a frequency of once per permit term. This is the typical time period required in Title V permits. At this time, the AQD does not have specific concerns that would warrant more frequent testing or the installation of a CEMS for those pollutants. Outside of testing, low NOx burners are required to be installed in the stoves. The ROP requires proper operation and routine inspection of the low NOx burners and associated recordkeeping which should ensure on going compliance with the hourly limits for NOx and CO.

The NOx tpy limit for B stove is based on emission factors developed through stack testing and fuel usage records of the amount of blast furnace and natural gas combusted in the stoves. Fuel usage records are well documented at the facility and are available on a daily, weekly, monthly and 12 month rolling basis. This along with stack testing and inspection and maintenance of burners should be sufficient to ensure compliance.

Compliance with NOx tpy limit for the C BFCASTHOUSE is demonstrated through stack testing as specified in VI.27 and the application of the iron casting rate. Tons of iron cast is tracked on a daily, monthly, and 12 month rolling basis. These records along with the required periodic stack testing to develop an emission factor are sufficient to demonstrate on going compliance.

Comment 5:

For compliance assurance, the following emission limits rely on monthly equipment, inspection, testing once or twice per permit term, or no monitoring, recordkeeping, reporting, or testing. We are concerned that there may not be sufficient monitoring, recordkeeping, reporting, and emission testing requirements to satisfy 40 C.F.R. § 70.6(c)(1) and recommend that believe that such requirements be established for these limits.

<b>Page</b>	<b>Emission</b>	<b>Limit lb/hr</b>
35	NOx	106.3 lb/hr
35	CO	2195 lb/hr
38	PM	11.17 lb/hr
38	SO2	23.03 lb/hr
38	NOx	2.45 lb/hr
39	VOC	6.77 lb/hr
39	Mn	0.00256 lb/hr
39	Pb	0.00015 lb/hr
53	PM	2.09 lb/hr
53	PM	10.0074 gr/dscf
53	PM	101.55 lb/hr
54	Mn	0.00064 lb/hr
54	Pb	0.000278 lb/hr
61	PM	0.0152 gr/dscf
61	PM	50.94 lb/hr
61	PM	10.0113 gr/dscf
61	PM	1037.70 lb/hr
61	NOx	52.94 lb/hr
61	CO	3057.4 lb/hr
70	Pb	0.0224 lb/hr

74	Pb	0.0128 lb/hr
78	CO	2.421b/hr
97	PM	7.45 lb/hr
97	PM	0.00135 gr/dscf
97	PM	103.35 lb/hr
97	NOx	10.17 lb/hr
97	Mn	0.101 lb/hr
97	Mn	0.0709 lb/hr
97	Hg	0.0125 lb/hr
97	Pb	0.0671b/hr

AQD Response 5:

It is difficult to specifically address this broadly written comment. The potential deficiency EPA has identified in each limit is unclear.

Page Emission limit

35 - NOx 106.3 lb/hr – EUCFECSTOVE. This has a testing requirement once per permit term along with proper maintenance of low NOx burners. This is sufficient for compliance.

35 - CO 2195 lb/h3 - EUCFECSTOVE. This has a testing requirement once per permit term along with proper maintenance of low NOx burners. This is sufficient for compliance. Note, this limit has been changed per PTI No. 182-05C issued on May 12, 2014.

38 - PM 11.17 lb/hr – EUCBFCASTHOUSE has a testing requirement of once per permit term. This EU is also regulated by the Iron and Steel MACT which requires testing once per permit term. Note, this limit has been changed per PTI No. 182-05C issued on May 12, 2014.

38 - SO2 23.03 lb/hr – EUCBFCASTHOUSE now has a Continuous Emission Monitoring System installed on the baghouse stack for SO2 emissions as required per PTI No. 182-0C5 issued on May 12, 2014 and the limit has been changed. This has not yet been incorporated into the ROP.

38 - NOx 2.45 lb/hr – EUCBFCASTHOUSE now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by the DEQ” and the limit has been changed. This has not yet been incorporated into the ROP.

39 - VOC 6.77 lb/hr - EUCBFCASTHOUSE now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by the DEQ” and the limit has been changed. This has not yet been incorporated into the ROP.

39 - Mn .00256 lb/hr - EUCBFCASTHOUSE now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by the DEQ” and the limit has been changed. This has not yet been incorporated into the ROP.

39 - Pb .00015 lb/hr - EUCBFCASTHOUSE now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by the DEQ” and the limit has been changed. This has not yet been incorporated into the ROP.

53 - PM 2.09 lb/hr – EUDESULFIZATN now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by the DEQ” and the limit has been changed. This has not yet been incorporated into the ROP. The PM emissions are controlled by a baghouse which has on going monitoring and recordkeeping requirements pursuant to the Integrated Iron and Steel MACT (Subpart FFFFF) to ensure continuous compliance which are contained in the ROP.

53 - PM10 .0074 gr/dscf – EUDESULFIZATN now longer contains this limit in PTI 182-05C.

53 - PM10 1.55 lb/hr - EUDESULFIZATN now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by DEQ” and the limit has been changed. This has not yet been incorporated into the ROP. The PM emissions are controlled by a baghouse which has on going monitoring and recordkeeping requirements pursuant to Integrated Iron and Steel MACT (Subpart FFFFF) to ensure continuous compliance which are contained in the ROP.

54 - Mn .00064 lb/hr - EUDESULFIZATN now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by DEQ” and the limit has been changed. This has not yet been incorporated into the ROP. The PM emissions are controlled by a baghouse which has on going monitoring and recordkeeping requirements pursuant to Integrated Iron and Steel MACT (Subpart FFFFF) to ensure continuous compliance which are contained in the ROP.

54 - Pb .000278 lb/hr - EUDESULFIZATN now has a requirement to test once per permit term in PTI No. 182-05C issued on May 12, 2014 as opposed to “if requested by DEQ” and the limit has been changed. This has not yet been incorporated into the ROP. The PM emissions are controlled by a baghouse which has on going monitoring and recordkeeping requirements pursuant to Integrated Iron and Steel MACT (Subpart FFFFF) to ensure continuous compliance which are contained in the ROP.

61 - PM .0152 gr/dscf – EUBOF ESP stack testing is required twice per permit term per the Integrated Iron and Steel MACT (Subpart FFFFF). Outside of stack testing, the ESP has a Continuous Opacity monitor (COMS) and is subject to operational requirements, monitoring, inspection, and recordkeeping via the Integrated Iron and Steel MACT which are contained in the ROP.

61 - PM 50.94 lb/hr – EUBOF ESP stack testing is required twice per permit term per the Iron and Steel MACT. Outside of stack testing, the ESP has a Continuous Opacity monitor (COMS) and is subject to operational requirements, monitoring, inspection, and recordkeeping via the Integrated Iron and Steel MACT which are contained in the ROP. Note, this limit has been changed in PTI No. 182-05C.

61 - PM10 .0113 gr/dscf – This limit has been removed from PTI No. 182-05C.

61 - PM10 37.70 lb/hr - EUBOF ESP stack testing is required once per permit term for PM10. Outside of stack testing, the ESP has a Continuous Opacity monitor (COMS) and is subject to operational requirements, monitoring, inspection, and recordkeeping via the Integrated Iron and Steel MACT which are contained in the ROP. Note, this limit has been changed in PTI No. 182-05C.

61 - NOx 52.94 lb/hr - EUBOF ESP stack testing is required once per permit term for NOx.

61 - CO 3057.4 lb/hr - EUBOF ESP stack testing is required once per permit term for CO. Note, this limit has been changed in PTI No. 182-05C.

70 - Pb.0224 lb/hr – EULADLEREFINE1 is subject to stack testing once every three years per PTI No. 182-05C. Note, this limit has been changed in PTI No. 182-05C. Additionally, lead emissions are emitted as particulate matter and filterable particulate matter is controlled by a baghouse. The baghouse is subject to monitoring, inspections, recordkeeping, and reporting as required in the Integrated Iron and Steel MACT which are contained in the ROP.

74 - Pb .0128 lb/hr – EULADLEREFINE2 is subject to stack testing once every three years per PTI 182-05C. Note, this limit has been changed in PTI No. 182-05C. Additionally, lead emissions are emitted as particulate matter and filterable particulate matter is controlled by a baghouse. The baghouse is subject to monitoring, inspections, recordkeeping, and reporting as required in the Integrated Iron and Steel MACT which are contained in the ROP..

78 - CO 2.421b/hr – EUVACUUMDEGASSER is subject to stack testing once every permit term. These emissions are controlled by a flare which should be sufficient as long as the flare is operating. Daily checks of the presence of the pilot flame are required in the ROP.

97 - PM 7.45 lb/hr – FGBOFSHOP is subject to stack testing once every three years per PTI No. 182-05C. Also, the PM emissions are controlled by a baghouse. The baghouse is subject to operational requirements, monitoring, inspections, and recordkeeping in the Integrated Iron and Steel MACT which are contained in the ROP. Note, this limit has been changed in PTI No. 182-05C.

97 - PM10 .00135 gr/dscf – This limit has been removed from PTI No. 182-05C.

97 - PM10 3.35 lb/hr - FGBOFSHOP is subject to stack testing once every three years. Also, the PM emissions are controlled by a baghouse. The baghouse is subject to operational requirements, monitoring, inspections, and recordkeeping in the Integrated Iron and Steel MACT which are contained in the ROP.

97 - NOx 10.17 lb/hr - FGBOFSHOP is subject to stack testing once every three years per PTI No. 182-05C.

97 - Mn .101 lb/hr - FGBOFSHOP is subject to stack testing once every three years from the baghouse stack and is a combined limit for the baghouse and ESP. Mn is emitted in the form of particulate matter. Both control devices control filterable Mn and are subject to monitoring, inspection, and recordkeeping requirements via the Integrated Iron and Steel MACT which are contained in the ROP.

97 - Mn .0709 lb/hr – FGBOFSHOP. This limit is only for the baghouse itself and testing is required once every three years per PTI No. 182-05C. Mn is emitted in the form of particulate matter. The baghouse controls filterable Mn and are subject to monitoring, inspection, and recordkeeping requirements via the Integrated Iron and Steel MACT which are contained in the ROP.

97 - Hg .0125 lb/hr - FGBOFSHOP is subject to stack testing once every three years per PTI No. 182-05C. This is a combined baghouse and ESP limit. Hg is emitted in the form of particulate matter. Both control devices control filterable Hg and are subject to monitoring, inspection, and recordkeeping requirements via the Integrated Iron and Steel MACT which are contained in the ROP.

97 - Pb.0671b/hr - FGBOFSHOP is subject to stack testing once every three years per PTI No. 182-05C. This is a combined baghouse and ESP limit. Pb is emitted in the form of particulate matter. Both control devices control filterable Pb and are subject to monitoring, inspection, and recordkeeping requirements via the Iron and Steel MACT which are contained in the ROP.

#### Comment 6:

On pages 27, 28, 49, 54, 62, 71, and 74, the permit requires, under 40 CFR Part 63, Subpart FFFFF, the development and implementation of written Startup, Shutdown and Malfunction (SSM) plans for B and C Blast Furnace Cast Houses, Basic Oxygen Furnace (BOF) Reloading South, Desulfurization Operation, BOF vessels, and Ladle Refining Facility No. 1 and 2. Since the source has been subject to Subpart FFFFF since 2006, the SSM plans should already been developed and implemented. The permit record should clarify whether the SSM plans have been developed and implemented.

#### AQD Response:

SSM Plans for all emission units listed above have been developed and implemented except for B Blast Furnace Casthouse (EUBBFCASTHOUSE) since it is not operating due to a catastrophic failure at the furnace.

Comment 7:

For B Blast Furnace (p. 28), C Cast Furnace, (p. 39), and the two BOFs (p. 97-98), the permit requires the submission of 98% collection efficiency certifications. As this is an existing source, these certifications should already have been submitted. The permit record should clarify whether the certifications have been submitted.

AQD Response:

The collection efficiency certifications for C Blast Furnace and the BOF have been submitted. As a clarification, there is only one BOF collection system for the two BOF vessels. Also, B blast furnace has not been rebuilt and the baghouse has not been installed. The certification will be submitted with the baghouse is completed.

Comment 8:

Under Subpart FFFFF, the permit requires Continuous Parametric Monitoring Systems (CPMS) "if applicable" on pages 29, 40, and 98. For this existing source, the permit record should clarify whether CPMS is required. Even if CPMS is not required under Subpart FFFFF, we recommend that the permit provide for it in light of the significant public concerns.

AQD Response:

CPMS requirements are applicable and have been implemented at the C blast furnace casthouse and the BOFSHOP. It will be implemented at the B blast furnace casthouse once the B furnace is rebuilt and the baghouse is installed.

Comment 9:

On p. 95, the permit cites the following Subpart FFFFF provision for B & C Blast Furnaces: The permittee shall demonstrate continuous compliance for each affected source subject to an emission limit or opacity limit in 63.7790(a) as specified in 40 CFR Part 63, Subpart FFFFF 63.7833(a). (40 CFR Part 63 Subpart FFFFF 63.7833(a)). This provision requires a form of continuous compliance for any of the applicable emission limits listed in Table 1 of Subpart FFFFF. However, none of the emission limits in Table 1 appear on pages 94 and 95. The permit record should clarify why the emission limits from Table 1 are not included in the permit.

AQD Response:

Page 94 contains the flex group for the B and C blast furnaces that lists the combined emission limits for both furnaces. Subpart FFFFF Table 1 contains individual limits for each furnace. These limits are found in the individual emission unit tables on page 27 and 38 for each of the Blast Furnace Casthouses (EUBBFCASTHOUSE) and (EUCBFCASTHOUSE).

Comment 10: Please describe Severstal Dearborn's compliance status with the fallout mitigation plans on pages 113 and 144-145 of the permit as well as any corrective actions currently underway for violations of these plans.

AQD Response:

The compliance status of the facility has significantly changed from the information presented in the 3-2-12 proposed ROP. Regarding the fallout mitigation plans, the facility has entered into Consent Decree Civil Action No. 15-cv-11804 on August 21, 2015 to address, in part, fallout violations from slag handling sources. Additionally, PTI No. 70-13 has been obtained by Edw. C. Levy Co (Section 2 of the ROP) for a desulfurization pot watering station which completely changes the manner in which desulfurization slag is handled and greatly reduces the potential for fugitive off site emissions. This PTI has not yet been incorporated into the ROP. At this time, the facility (now operating as AK Steel – Dearborn Works) does not have alleged on going noncompliance with General Condition.12 (a) & (b) (Rule 336.1901). Additionally, emission exceedances that were being addressed through the schedule of compliance were resolved by the issuance of PTI 182-05C. As such, the schedule of compliance in Appendix 2-1 and 2-2 shall be removed.

**No comments received on Section 2**

**Changes to the March 2, 2012 Proposed ROP**

1. The AQD changed the facility name from Severstal Dearborn, LLC to AK Steel – Dearborn Works.
2. On the *Authority and Enforceability* page, the AQD added a reference to the Consent Decree (Civil Action No. 15-cv-11804).
3. The AQD removed the schedule of compliance in Appendix 2-1 and 2-2.

Michigan Department of Environmental Quality  
Air Quality Division

State Registration Number

A8640

**RENEWABLE OPERATING PERMIT**

**JUNE 15, 2016 - STAFF REPORT FOR RULE  
216(1)(a)(v) ADMINISTRATIVE AMENDMENT**

ROP Number

MI-ROP-A8640-2016a

**Purpose**

On April 22, 2016, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-A8640-2016 to AK Steel Dearborn Works pursuant to R 336.1214. A company is required to submit an application for changes to the ROP as described in R 336.1216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to R 336.1216(1)(a)(v).

**General Information**

Responsible Official:	AK Steel Dearborn Works – Section 1 Nicholas Kohlhas, General Manager 313-317-8955  Edw. C. Levy Co - Section 2 Thomas A. Smith, General Operations Manager 313-429-2600
AQD Contact:	Katie Koster, Senior Environmental Engineer 313-456-4678
Application Number:	201600073 and 201600074
Date Application For Administrative Amendment Was Submitted:	March 29, 2016

**Regulatory Analysis**

AK Steel Dearborn Works, Section 1, has requested that the Permits to Install (PTI) Nos. 182-05C and 20-14, issued on May 12, 2014 and September 10, 2014, respectively, be incorporated into ROP No. MI-ROP-A8640-2016. Edw. C. Levy Co., Section 2, has requested that PTI 70-13, issued September 16, 2013, be incorporated into MI-ROP-A8640-2016. The AQD has determined that the changes requested meet the following criteria for an Administrative Amendment pursuant to Rule 216(1)(a)(v): the PTI's include terms and conditions that comply with the permit content requirements contained in Rule 213; the procedure used to issue the PTI's was substantially equivalent to the requirements of Rule 214 regarding public participation and review by affected states; and the process or process equipment is in compliance with, and no changes are required to, the terms and conditions of the PTI's that are to be incorporated into the ROP. Also, the permittee notified the AQD in writing of commencing operation of the processes covered by the PTI's and has submitted certified results of all required testing, monitoring and recordkeeping performed to date to demonstrate compliance with the PTI's.

**Description of Changes to the ROP**

PTI 182-05C resulted in changes to emission unit definitions and emission limits.

The following emission units and flexible groups from the existing ROP No. MI-ROP-A8640-2016 were entirely replaced by conditions from PTI 182-05C in the modified ROP:

EUBFCESTOVE, EUBBFCSTHOUSE, EUBBFBLEEDERS are all now EUBFURNACE from 182-05C.

EUCFCESTOVE, EUCBFCSTHOUSE, EUCBFBLEEDERS are all now EUCFURNACE from 182-05C.

EURELADLINGBOF, EUDESULFURIZATN (renamed EUBOFDESULF), EUBOF, EULADLEREFINE1, EULADLEREFINE2 remain but the emission unit tables were replaced by 182-05C.

EUHCLSTORAGESCRU, EUPICKLINSRUBS, and EUMAINTPAINTS have been removed as equipment was removed.

EUANNEALFURNACES was replaced by FGANNEALFURNACES from 182-05C.

FGB&CSTOVES and FGB&CCASTHOUSES were replaced by FGB&CFURNACES from 182-05C.

FGBOFSHOP remains but the FG table was replaced with the table from 182-05C.

FGREHEATFURN123 was replaced by FGHSMFURANCES123 from 182-05C.

FGENG2007>500 and FGENG2007<500 are new EU's added to the modified ROP from PTI 182-05C.

PTI 20-14 was for the installation of a machine scarfer. As such, the following new emission units and flexible group were added to the ROP modification: EUBLDGHEAT, EUMACHSCARF, EUMANUALSCARF, EUCUTSLICE, FGSCARFBLDG.

PTI 70-13 was issued to Edw. C. Levy Company for a desulfurization slag pot water station and those conditions are now in Section 2 under FGDESULFWTR-STN. EUDESULFWATERING was removed from Section 1.

### **Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the change as of the date of approval of the Administrative Amendment to the ROP.

### **Action Taken by the DEQ**

The AQD proposes to approve an Administrative Amendment to ROP No. MI-ROP-A8640-2016, as requested by the stationary source. A final decision on the Administrative Amendment to the ROP will not be made until the U.S. Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Administrative Amendment will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by the USEPA.