

State Registration Number  
B1754

Michigan Department of Environmental Quality  
Air Quality Division  
**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B1754-2018

**Ervin Amasteel Divison**

SRN: B1754

Located at

915 Tabor Street, Adrian, Lenawee, Michigan 49221

Permit Number: MI-ROP-B1754-2018

Staff Report Date: October 30, 2017

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).

## TABLE OF CONTENTS

OCTOBER 30, 2017 - STAFF REPORT	3
JANUARY 16, 2018 - STAFF REPORT ADDENDUM	8

**RENEWABLE OPERATING PERMIT**

**OCTOBER 30, 2017 - STAFF REPORT**

**Purpose**

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an 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 Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP 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:	Ervin Amasteel Division 915 Tabor Street Adrian, MI 49221
Source Registration Number (SRN):	B1754
North American Industry Classification System (NAICS) Code:	327910
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201700051
Responsible Official:	James C. Lemon, Plant Manager 517-265-5636
AQD Contact:	Mike Kovalchick, Senior Environmental Engineer 517-416-5025
Date Application Received:	April 4, 2017
Date Application Was Administratively Complete:	April 4, 2017
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	October 30, 2017
Deadline for Public Comment:	November 29, 2017

## Source Description

Ervin Amasteel, a division of Ervin Industries, is located adjacent to the Adrian city limits in Madison Township. The facility is situated on 21 acres that is zoned heavy industrial. Approximately 250 feet NNE of the property is residential housing in the city of Adrian. About 1000 feet to the southwest of the facility there is a mobile home park.

Ervin Amasteel manufactures steel abrasive as shot and grit. The shot is made by melting scrap steel with a 40-ton capacity electric arc furnace (EAF) and then atomizing the molten steel to form the shot. The grit is made by crushing the shot into smaller angular pieces. The EAF was installed in 1994. It is housed inside the Melt shop that contains a capture system that directs air emissions into a dust collector. After the shot is made, it is screened to segregate the shot into selected sizes. A dust collector collects dust from the two shot dryers and the screening process. After the initial screening of the shot, the shot goes through a heat treatment process. The shot is then packaged or crushed into grit. A dust collector is connected to the grit crushing machines and to various product transfer points throughout the process. Once the product is packaged, it is stored in the onsite warehouse until shipment.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2016**.

### **TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	31.13
Lead (Pb)	0
Nitrogen Oxides (NO <sub>x</sub> )	2.63
Particulate Matter (PM)	2.76
Sulfur Dioxide (SO <sub>2</sub> )	11.16
Volatile Organic Compounds (VOCs)	16.52
Manganese	0

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2016 by AQD:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
NA	
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>NA</b>

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

See Parts C and D in the 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 Lenawee County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of carbon monoxide exceeds 100 tons per year.

The stationary source is considered to be a minor source of HAP emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

EU0009 at the stationary source was subject to review under the Prevention of Significant Deterioration regulations of 40 CFR Part 52.21 because at the time of New Source Review permitting the potential to emit of carbon monoxide was greater than 100 tons per year.

EU0009 at the stationary source is subject to the New Source Performance Standards for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 promulgated in 40 CFR Part 60, Subparts A and AAs, and the Maximum Achievable Control Technology Standards for Area/Sources: Electric Arc Furnace Steelmaking Facilities promulgated in 40 CFR Part 63, Subparts A and YYYYYY.

For EU0009, some conditions were modified to better reflect the intent of the PSD and Subpart AA requirements.

Ervin Amasteel Division entered into Consent Order No. EPA-5-17-113(a)-MI-05 with EPA on March 21, 2017. EPA alleged that the Company was not operating in accordance with good air pollution control practices by venting emissions from the EAF through the south wall fans. In response to these allegations, the Company installed gravity louvers on the outside of the south wall fans and connected the south wall fans to a control system that prevents fan operation while the main fan at Baghouse-0009 (and the EAF) is in operation. Compliance with the Consent Order was completed prior to renewal of the ROP. It involved making enforceable in a PTI permit the changes the Company already made to the south wall fans.

EUELECGEN which is a natural gas-powered generator for emergency lighting that is rated at 0.05 MMBtu/hr is subject to the National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. The ROP contains special conditions provided by Ervin Amasteel Division in their application for applicable requirements from 40 CFR Part 63, Subparts A and ZZZZ. The AQD is not delegated the regulatory authority for this area source MACT.

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

The emission limitations or standards for particulate from EU0009 at the stationary source are subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64 but monitoring included in the National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities is considered to be presumptively acceptable monitoring for the particulate limits of 0.0052 gr/dscf and related opacity limit of 6% and is included in the ROP in FG0009 and FGMACT-YYYYYY.

<b>Emission Unit ID</b>	<b>Pollutant/ Emission Limit</b>	<b>UAR(s)</b>	<b>Control Equipment</b>	<b>Monitoring</b>	<b>Presumptively Acceptable Monitoring?</b>
FG0009, FGMACT-YYYYYY.	Particulate/ 0.0052 gr/dscf and 6% opacity.	40 CFR 60.272a(a)(1)	Bag house	Daily recording of the pressure drop across the bag house and daily observations of the bag house vent for opacity.	Yes

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. MI-ROP-B1754-2013 are identified in Appendix 6 of the ROP.

PTI Number			
109-70 (EU0004)	787-79A (EU0005)	337-76 (EU0009)	369-93 (EU0009)
46-12 (EU0007)	84-12 (FG0005)	53-12 (FG0009)	

**Streamlined/Subsumed Requirements**

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

**Non-applicable Requirements**

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

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EU-SPACEHTRS	Natural gas fired space heating units ranging from 0.1-0.99 MMBtu/hour	212(4)(b)	282(2)(b)(i)
EU-WTRHTR	Natural gas fired water heating unit 0.28 MMBtu/hour	212(4)(b)	282(2)(b)(i)
EU-LPGTANKS	Two 30,000 gallon propane storage tanks	212(4)(c)	284(2)(b)
EU-RXGEN	Natural gas fired (endothermic) atmosphere generator 10 MMBtu/hour	212(4)(d)	285(2)(l)(iv)
EU-HTSFUR	Natural gas fired heat treat furnaces ranging from 1.2 – 2.1 MMBtu/hour	212(4)(b)	282(2)(a)(i)

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

This draft ROP 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 as of the effective date of this ROP.

### **Action taken by the MDEQ, AQD**

The AQD proposes to approve this ROP. 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 ROP 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 Scott Miller, Jackson District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP 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.

State Registration Number

**RENEWABLE OPERATING PERMIT**

ROP Number

B1754

**JANUARY 16, 2018 - STAFF REPORT  
ADDENDUM**

MI-ROP-B1754-2018

**Purpose**

A Staff Report dated October 30, 2017, 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:	James C. Lemon, Plant Manager 517-265-5636
AQD Contact:	Mike Kovalchick Senior Environmental Engineer 517-416-5025

**Summary of Pertinent Comments**

Comments were received during the 30-day public comment period. The AQD's response to pertinent comments are as follows:

**EPA Comments**

**EPA Comment 1:**

The staff report indicates that EU009 is subject to Compliance Assurance Monitoring (CAM) pursuant to 40 CFR Part 64 and notes that the monitoring for the control device is daily recording of the pressure drop across the bag house and daily observations of the baghouse vent for opacity. The Staff Report states that these monitoring requirements are from 40 CFR Part 63, Subpart YYYYY – National Emissions Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities and that these requirements are considered to be presumptively acceptable monitoring for CAM. However, 40 CFR 60.10686(e) requires monitoring of the capture system and PM control devices, along with recordkeeping and reporting, according to the CAM requirements in 40 CFR Part 64. Furthermore, the permit does not include the applicable CAM requirements as specified in 40 CFR 64.6(c) and the MDEQ's CAM example template. Please verify CAM applicability and include the CAM requirements in the permit as applicable.

**AQD Response 1:**

CAM specific requirements need to be added to FG0009 to comply with 40 CFR Part 64. AQD agrees that presumptively acceptable monitoring is not applicable.

**EPA Comment 2:**

In order to clearly identify the origin and authority and permanency of the federal Consent Order provisions established in Consent Order No. EPA-5-17-113(a)-MI-05, please review and add Act 451, Section 324.5503(b) as an underlying applicable requirement and footnote 3 to Special Condition (SC) III.2 and SC IV.5 as appropriate.

AQD Response 2:

AQD agrees that in order to clearly identify the origin and authority and permanency of the federal Consent Order provisions established in Consent Order No. EPA-5-17-113(a)-MI-05, a footnote needs to be added to reference Act 451, Section 324.5503(b) as an underlying applicable requirement to FG0009, SC III.2 and SC IV.5.

EPA Comment 3:

The visible emissions limits (both labelled as SC I.2) list test protocol as the time period/operating scenario. FGMACT-YYYYY consists of FG0009 which does include a time period/operating scenario for similar requirements. We recommend that the time period/operating scenario for the conditions in FGMACT-YYYYY be updated to reflect an appropriate averaging time consistent with the other visible emissions limits to which this emission unit is subject.

AQD Response 3:

AQD agrees that the time period/operating scenario for conditions in FGMACT-YYYYY needs to be updated to reflect an appropriate averaging time consistent with the other visible emission limits to which the EAF is subject to in FG0009.

EPA Comment 4:

The origin and authority for FGSI-RICEMACT SC III.4 appears to inadvertently refer to the requirements for compression ignition combustion engines and may need to be updated to cite to the requirements for spark ignition combustion engines.

AQD Response 4:

AQD agrees that the proper citation should be 40 CFR 63.6625(j) for FGSI-RICEMACT, SC III.4.

**Changes to the October 20, 2017 Draft ROP**

The following changes were made to the revised draft ROP to address comments for the following reasons:

EPA Comment 1:

CAM specific requirements have been added to FG0009 to comply with 40 CFR Part 64.

EPA Comment 2:

A footnote was added to reference Act 451, Section 324.5503(b) as an underlying applicable requirement to FG009 Conditions SC III.2 and SC IV.5.

EPA Comment 3:

The time period/operating scenario for conditions in FGMACT-YYYYY have been updated to reflect an appropriate averaging time consistent with the other visible emission limits to which the EAF is subject to in FGMACT-YYYYY.

EPA Comment 4:

The citation for FGSI-RICEMACT SC III.4 has been changed from 40 CFR 63.6625(i) to 40 CFR 63.6625(j).