From:	Irwin, Andrea (EGLE)
To:	Orent, Kelly (EGLE)
Cc:	Shaffer, Adam (EGLE); Hare, Chris (EGLE)
Subject:	FW: B7013 Huron Casting & Blue Diamond Steel Casting ROP renewal application
Date:	Wednesday, September 21, 2022 8:16:11 AM
Attachments:	FN3-018 Dust Collector Daily Inspection (3).pdf 187-19.pdf B7013 ROP Renewal Application 09-19-2022.docx ROP Renewal Cover Letter.doc FMAINT.02_D_HCI_DAILY_MONITORING.pdf B7013 FINAL 12-04-19 Company Redline.docx SOP MA.03 Dust Collector (rev 8).pdf SOP_MAINT.400__Rev._E__Dust_Collector.pdf SOP_MAINT.500__Rev._B__Malf_and_Abate_Dust_Collector.pdf

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Good Morning

Attached are the application documents for B7013 Huron Casting and Blue Diamond. This one was is assigned to the RCU.

The company sent this email directly to Chris and Adam. Do you want us to have them send it all directly to the ROP Inbox as well, or just let him know for future reference?

I'll let you know once I get the hard copy in also.

Thanks!

Andrea Irwin
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division
Bay City District Office
Ph: 989-798-0782 Fax: 989-891-9213
irwina1@michigan.gov

From: Shaffer, Adam (EGLE) <ShafferA1@michigan.gov>
Sent: Wednesday, September 21, 2022 8:00 AM
To: Irwin, Andrea (EGLE) <IrwinA1@michigan.gov>
Subject: FW: B7013 Huron Casting & Blue Diamond Steel Casting ROP renewal application

Respectfully,

Adam Shaffer
Environmental Quality Analyst
Air Quality Division
Bay City District Office
Michigan Department of Environment,
Great Lakes, and Energy
989-225-4789

From: Daryl Mendrick <dmendrick@huroncasting.com>
Sent: Tuesday, September 20, 2022 1:16 PM
To: Hare, Chris (EGLE) <HAREC@michigan.gov>; Shaffer, Adam (EGLE) <ShafferA1@michigan.gov>

Subject: B7013 Huron Casting & Blue Diamond Steel Casting ROP renewal application

Please see the attachments for submission of the ROP Renewal Application for HCI & BDI. Hard copies will also be sent.

Thank you,

Daryl Mendrick
EHS Director
Huron Casting & Companies
989-453-6500 x463

Huron Casting, Inc.
P.O. Box 679
7050 Hartley Street
Pigeon, MI 48755

Tel: (989) 453-3933
Fax: (989) 453-3319
www.huroncasting.com

September 20, 2022

Chris Hare, EGLE AQD
District Supervisor
Bay District
401 Ketchum Street
Bay City Michigan, 48708

Please see the enclosed ROP Renewal Application for Huron Casting, Inc and Blue Diamond Steel Casting (SRN B7013). Also included is the marked-up copy of the existing ROP as well as other documentation per page 3 of the application.

If you have any questions regarding this submission, please feel free to contact me.

Thank you,

Daryl Mendrick
EHS Director
Huron Casting & Companies
989-453-6500 x463

EGLE

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
B7013		331513	MI-ROP-B7013-2018	1 & 2

Source Name: HURON CASTING INC. & BLUE DIAMOND STEEL CASTING, LLC

Street Address: 7050 HARTLEY STREET & 125 STURM ROAD

City	State	ZIP Code	County
PIGEON	MI	48755	HURON

Section/Town/Range (if address not available):

Source Description: HCI & BDI are a steel casting facility. The steel casting operations include raw materials handling, sand mixing, mold and core production, melting, casting, finishing, welding, grinding, testing, packaging, and shipping.

☐ Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.

OWNER INFORMATION

Owner Name: LEROY WURST

Section Number (if applicable):

Mailing address (☒ check if same as source address)

City	State	ZIP Code	County	Country

☐ Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

SRN: B7013	Section Number (if applicable):

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name			Title	
DARYL MENDRICK			EHS DIRECTOR	
Company Name & Mailing address (☒ check if same as source address)				
HURON CASTING INC.				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
989-453-6500		dmendrick@huroncasting.com		

Contact 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
DARYL MENDRICK			EHS DIRECTOR	
Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
989-453-6500		dmendrick@huroncasting.com		

Responsible Official 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

☐ Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

SRN: B7013	Section Number (if applicable):

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.

☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☒ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☐ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☐ Electronic documents provided (optional)
☒ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will meet in a timely manner applicable requirements that become effective during the permit term.	☒ Yes ☐ No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

DARYL MENDRICK EHS DIRECTOR

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Signature of Responsible Official **Date**

SRN: B7013	Section Number (if applicable):

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from **all** emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes ☒ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☒ No ☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☒ Yes ☐ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No ☐ Yes ☐ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	☐ Yes ☒ No ☐ Yes ☐ No ☐ ☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	☒ Yes ☐ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	☐ Yes ☒ No

☐ Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**

SRN: B7013	Section Number (if applicable):

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. ☒ Yes ☐ No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
HCI BH-880	ROBOT SAW/GRIND	212(4)(e)	285(R)(iv)
HCI BH-775	GRIND	212(4)(e)	285(R)(iv)
BDI BH-11 71111	WHEELABRATOR CLEANING	212(3)(f)	285(l)(vi)(B)
BDI BH-12 71112	NO BAKE SAND	212(3)(f)	285(l)(vi)(B)
BDI BH-15 71115	WHEELABRATOR CLEANING	212(3)(f)	285(l)(vi)(B)
BDI BH-21 71124	SAW/GRIND	212(4)(e)	285(R)(iv)
BDI BH-20 71123	SAND/SHOT RECYCLING	212(3)(f)	285(l)(vi)(B)

Comments:
All units serving these emission units are recirculated/discharged to the general in-plant environment.

☐ Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

SRN: B7013	Section Number (if applicable):

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to **all** emission units and **all** applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☐ Yes ☒ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes ☒ No

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: **AI-**

SRN: B7013	Section Number (if applicable):

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. If No, go to Part G. ☒ Yes ☐ No

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed
187-19	EUEMERGENCY	Emergency diesel-fueled 3,353 bhp generator to use in the event of a power outage. Operation limited to 100 hours per calendar year.	06/09/2021

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. ☒ Yes ☐ No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. ☒ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☒ Yes ☐ No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. ☐ Yes ☒ No

Comments:
For F4, stack SVEMERGENCY was not reported in most recent MAERS report.

☐ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**

SRN: B7013	Section Number (if applicable):

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H. ☒ Yes ☐ No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices***	**Date Emission Unit was Installed/ Modified/ Reconstructed**
☒ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation	All EUs listed below have baghouses for control devices and broken bag detectors for monitoring devices. HCI BH-880 ROBOT SAW/GRIND HCI BH-775 GRIND BDI BH-11 71111 WHEELABRATOR CLEAN BDI BH-12 71112 NO BAKE SAND BDI BH-15 71115 WHEELABRATOR CLEAN BDI BH-21 71124 SAW/GRIND BDI BH-20 71123 SAND SHOT RECYCLING	 10/01/2009 12/01/2006 6/30/2012 6/30/2012 7/31/2014 7/31/2014 7/31/2014
☐ Rule 287(2)(c) surface coating line		
☐ Rule 290 process with limited emissions		

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

SRN: B7013	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	☐ Yes ☒ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes ☒ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	☐ Yes ☒ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes ☒ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes ☒ No

SRN: B7013	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No

SRN: B7013	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15.	Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H16.	Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H17.	Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No

☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: B7013	Section Number (if applicable):

1. Additional Information ID
AI-

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: April 10, 2018
REVISION DATE: December 4, 2019

ISSUED TO

Huron Casting Inc

and

Blue Diamond Steel Casting LLC

State Registration Number (B7013):

LOCATED AT

7050 Hartley Street, Pigeon, Michigan 48755

and

125 Sturm Road, Pigeon, Michigan 48755

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B7013-2018a

Expiration Date: April 10, 2023

Administratively Complete ROP Renewal Application Due Between
October 10, 2021 and October 10, 2022

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B7013-2018a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

_____

Chris Hare, Bay City District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order/Judgement Number 4-2017, entered on April 20, 2017, between the EGLE and the permittee.

SECTION 1 – HURON CASTING INC

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:" [2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee 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, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan’s State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

47. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

SOURCE-WIDE CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Some emission units controlled with baghouses

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	59.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
2. PM2.5	11.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
3. VOC	50 lb/ton binder[2]	monthly average	All emission units located at the facility	SC VI.3 and VI.4	**R 336.2810 Consent Order AQD No. 4-2017**
4. VOC	98.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
5. Individual HAPs	8.9 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
6. Aggregate HAPs	22.4 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
7. CO	4.8 lb/ton melt[2]	monthly average	All emission limits located at the facility	SC VI.3 and VI.4	**R 336.2810 Consent Order AQD No. 4-2017**
8. CO	345.6 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission limits located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

1. The permittee shall not melt more than 144,000 tons of metal per year based on a 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall not melt more than 72,000 tons per year of steel at Huron Casting, Inc. based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

3. The permittee shall not melt more than 72,000 tons per year of steel at Blue Diamond Steel Casting based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

4. The permittee shall not use more than 1,026 MMcf per year of natural gas, based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

5. The permittee shall not process a combined total of more than 3,870 tons of binder per year in FG-MOLDLINE, FG-BDSV03, FG-BDSV04, and FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each emission unit that is subject to an emission limit more than 7,000 hours per year based on a 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall not operate any of the 29 baghouses at the facility unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted to the AQD District Supervisor within 180 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of metal melted in tons per month, as required by SC II.1, II.2, and II.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205, R 336.1220, R 336.1225, Consent Order AQD No. 4-2017)**

3. The permittee shall have an approved spreadsheet by the AQD District Supervisor to calculate all emissions as specified in SC I.1 through I.8, based on material usage rates and emission factors.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM10, PM2.5, VOCs, individual and aggregate HAPs, and CO emission calculation records, as required by SC I.1, I.2, I.3, I.4, I.5, I.6, I.7, and I.8. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period operating hour records for each emission unit, that is subject to an emission limit, as required by SC III.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of natural gas usage rates, as required by SC II.4. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of binder usage rates, as required by SC II.5. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-01	A-line east pouring line, Mag drum and shot air wash controlled by Baghouse #774 (20,000 dry standard cubic feet per minute (dscfm) reverse air type). Stack SV-01	01/28/1977	NA
EU-02	Vibramill, A-line Shake-out sand elevator and conveyor, A-line shot leg controlled by Baghouse #788 (20,000 dscfm pulse jet type). Stack SV-02.	01/28/1977	NA
EU-POURINGA	Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type). Exhausts to the in-plant environment.	01/28/1977	FG-POUR
EU-03A	A-line west end pouring line, A-line cooling room controlled by Baghouse #789 (32,000 dscfm shaker type). Stack SV-03.	01/28/1977	FG-MOLDLINE
EU-03B	West end pouring line B, B-line cooling room controlled by Baghouse #792 (47,000 dscfm shaker type). Stack SV-03.	05/08/1997	FG-MOLDLINE
EU-TORCHES1-18	Cutting torches #1-18. No Control. Stack SV-04	06/05/1997	NA
EU-05	Vibramill, Shot Air Wash, B-line east end pouring line controlled by Baghouse #791 (42,000 dscfm reverse air type). Stack SV-05.	06/12/1997	NA
EU-06	Sand coating/handling and reclaim operations controlled by Baghouse #787 (20,000 dscfm reverse air type). Stack SV-06.	12/01/1985	NA
EU-07	Sand coating/handling and reclaim operations, Vibramill, controlled by Baghouse #484 east and Baghouse 484 west ~~#1001~~ (total air flow ~~20,000~~16,000 dscfm reverse air type). Stack SV-07.	Sandcoater installation: 08/23/2012 Reclaim operations/Calciner installation: 12/01/1995	NA
EU-08	Cut-off saws #1-9, Grinders #1-13, 7 to 12 Hand grinders, 7 welders controlled by Baghouse #616 (40,000 dscfm, reverse air type). Exhausts to the in-plant environment.	12/09/1998	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-09	Shot blast equipment controlled by Baghouse #618 (25,000 dscfm reverse air type). Stack SV-09.	04/17/2000	NA
EU-10A	Sand leg and mag drum, Shot legs, Vibratory mold dumper/conveyor controlled by Baghouse #864 (32,000 dscfm dust collector) and Baghouse #776 (24,000 dscfm dust collector). Both reverse air. Stack SV-10A.	06/10/1997	NA
EU-POURINGB	Three electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type). Exhausts to the in-plant environment.	05/12/1997	FG-POUR
EU-MOLDLINE-A	Molding machines #1-4. No control. Stack SV-03.	01/18/1979	FG-MOLDLINE
EU-MOLDLINE-B	Molding machines #5-16. No control. Stack SV-03.	11/07/1990	FG-MOLDLINE
EU-MOLDLINE-C	Molding machines #17-26. No control. 20 to 25 core machines. Stack SV-03.	08/21/2006	FG-MOLDLINE
EU-TORCHES19-22	Cutting torches #19-22. No control. Stack SV-03.	01/17/1977	FG-MOLDLINE

EU-01
EMISSION UNIT CONDITIONS

DESCRIPTION

A-line east pouring line, Mag drum and shot air wash.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #774 (20,000 dry standard cubic feet per minute (dscfm) reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-01	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.020 pph[2]	Hourly	EU-01	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.004 pph[2]	Hourly	EU-01	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-01 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-01 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #774 with a bag leak detection system. The permittee shall not operate Baghouse #774 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-01 at least once monthly, during operation, when EU-01 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-01	40[2]	52[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-02
EMISSION UNIT CONDITIONS

DESCRIPTION

Vibramill, A-line Shake-out sand elevator and conveyor, A-line shot leg.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #788 (20,000 dscfm pulse jet type).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-02	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.090 pph[2]	Hourly	EU-02	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.018 pph[2]	Hourly	EU-02	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-02 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-02 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #788 with a bag leak detection system. The permittee shall not operate Baghouse #788 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-02 at least once monthly, during operation, when EU-02 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-02	24[2]	61[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-TORCHES1-18
EMISSION UNIT CONDITIONS

DESCRIPTION

Cutting torches #1-18.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.220 pph[2]	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.044 pph[2]	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-TORCHES1-18 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from EUTORCHES1-18 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing.[2] **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. If testing, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform and record the results of a non-certified visible emissions check on EU-TORCHES1-18 at least once monthly, during operation, when EU-TORCHES1-18 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-04	30[2]	55[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-05
EMISSION UNIT CONDITIONS

DESCRIPTION

Vibramill, Shot Air Wash, B-line east end pouring line.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #791 (42,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-05	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.730 pph[2]	Hourly	EU-05	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.146 pph[2]	Hourly	EU-05	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No 4-2017**

4. Visible emissions from EU-05 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-01 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #791 with a bag leak detection system. The permittee shall not operate Baghouse #791 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-05 at least once monthly, during operation, when EU-05 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-05	42[2]	80[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-06
EMISSION UNIT CONDITIONS

DESCRIPTION

Sand coating/handling and reclaim operations.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #787 (20,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-06	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.540 pph[2]	Hourly	EU-06	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.012 pph[2]	Hourly	EU-06	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-06 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not exceed a loss of one percent resin based on total weight for the resin coated sand in the mold/core making process from pouring through shakeout.[1] **(R 336.1225, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-06 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate the EU-06 unless a minimum temperature of 1,200ºF of the calcining furnace is maintained.[1] **(R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall not operate the calcining furnace in EU-06 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee

shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #787 with a bag leak detection system. The permittee shall not operate Baghouse #787 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis. **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall continuously monitor the temperature of the calcining furnace utilizing temperature charts on a daily basis. **(R 336.1213(3))**

3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders which were used in the previous month of April and that the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor prior to June 30. **(R 336.1213(3))**

4. The permittee shall perform and record the results of a non-certified visible emissions check on EU-06 at least once monthly, during operation, when EU-06 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-06	32[2]	80[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-07
EMISSION UNIT CONDITIONS

DESCRIPTION

Sand coating/handling and reclaim operations, Vibramill

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #484 and Baghouse #1001 (total air flow 20,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-07	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.540 pph[2]	Hourly	EU-07	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.012 pph[2]	Hourly	EU-07	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-07 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not exceed a loss of one percent resin based on total weight for the resin coated sand in the mold/core making process from pouring through shakeout.[1] **(R 336.1225, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-07 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate the EU-07 unless a minimum temperature of 1,200ºF of the calcining furnace is maintained.[1] **(R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall not operate the calcining furnace in EU-07 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan

and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain both Baghouse #484 and Baghouse #1001 with a bag leak detection system. The permittee shall not operate either Baghouse #484 or Baghouse #1001 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall continuously monitor the temperature of the calcining furnace utilizing temperature charts on a daily basis.[1] **(R 336.1225, Consent Order AQD No. 4-2017)**

3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders which were used in the previous month of April and that the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor prior to June 30. **(R 336.1213(3))**

4. The permittee shall perform and record the results of a non-certified visible emissions check on EU-07 at least once monthly, during operation, when EU-07 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-07	36[2]	46[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-08
EMISSION UNIT CONDITIONS

DESCRIPTION

Cut-off saws #1-9, Grinders #1-13, 7 to 12 Hand grinders, 7 welders.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #616 (40,000 dscfm, reverse air type). Exhausts to the in-plant environment.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.003 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-08	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.5 pph[2]	Hourly	EU-08	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.5 pph[2]	Hourly	EU-08	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-08 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #616 with a bag leak detection system. The permittee shall not operate Baghouse #616 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-08 directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-09
EMISSION UNIT CONDITIONS

DESCRIPTION

Shot blast equipment.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #618 (25,000 dscfm reverse air type).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-09	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.050 pph[2]	Hourly	EU-09	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.010 pph[2]	Hourly	EU-09	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-09 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-09 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #618 with a bag leak detection system. The permittee shall not operate Baghouse #618 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-09 at least once monthly, during operation, when EU-09 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-09	36[2]	59[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-10A
EMISSION UNIT CONDITIONS

DESCRIPTION

Sand leg and mag drum, Shot legs, Vibratory mold dumper/conveyor.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #864 (32,000 dscfm dust collector) and Baghouse #776 (24,000 dscfm dust collector). Both reverse air.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-10A	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.66 pph[2]	Hourly	EU-10A	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.132 pph[2]	Hourly	EU-10A	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from EU-10A shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-10A unless the associated baghouses are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain both Baghouse #864 and Baghouse #776 with a bag leak detection system. The permittee shall not operate either Baghouse #864 or Baghouse #776 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-10A at least once monthly, during operation, when EU-10A is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-10A	48[2]	80[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-POUR	EU-POURINGA: Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type). Exhausts to the in-plant environment. EU-POURINGB: Three (3) electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type). Exhausts to the in-plant environment.	EU-POURINGA, EU-POURINGB
FG-MOLDLINE	Molding machines # 1-26 and cutting torches #19-22. No control. A-line west end pouring line A-line cooling room controlled by Baghouse #789 (32,000 dscfm shaker type) West end pouring line B, B-line cooling room controlled by Baghouse #792 (47,000 dscfm shaker type) All equipment exhausts through SV-03.	EU-03A, EU-03B, EU-MOLDLINE-A, EU-MOLDLINE-B, EU-MOLDLINE-C, EU-TORCHES19-22
FG-MACTZZZZZ (conditions listed after the Blue Diamond Steel Casting conditions)	The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Huron Casting Inc. is an existing large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.	

FG-POUR
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

EU-POURINGA:
Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type) exhausts to the in-plant environment.

EU-POURINGB:
Three electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type) exhausts to the in-plant environment.

Emission Units: EU-POURINGA and EU-POURINGB

POLLUTION CONTROL EQUIPMENT

Three baghouses that exhaust to the in-plant environment.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	FG-POUR	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.5 pph[2]	Hourly	FG-POUR	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.5 pph[2]	Hourly	FG-POUR	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FG-POUR unless the associated baghouses are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #790, Baghouse #554, and Baghouse #553 with a bag leak detection system. The permittee shall not operate Baghouse #790, Baghouse #554, or Baghouse #553 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-POURINGA and/or EU-POURINGB directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a)

FG-MOLDLINE
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Molding machines # 1-26 and cutting torches #19-22. No control.

A-line west end pouring line A-line cooling room; BH #789

West end pouring line B, B-line cooling room; BH #792

All equipment exhausts through SV-03.

Emission Unit: EU-MOLDLINE-A, EU-MOLDLINE-B, EU-MOLDLINE-C, EU-TORCHES19-22, EU-03A, EU-03B

POLLUTION CONTROL EQUIPMENT

Baghouse #789 (32,000 dscfm shaker type)
Baghouse #792 (47,000 dscfm shaker type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	FG-MOLDLINE	SC VI.4	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	4.6 pph[2]	Hourly	FG-MOLDLINE	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.922 pph[2]	Hourly	FG-MOLDLINE	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
4. Phenol	1.95 pph[2]	Hourly	FG-MOLDLINE	SC V.1	**R 336.1205(3), R 336.1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017**

5. Visible emissions from FG-MOLDLINE shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not use more than 1,480 tons per year of binder in FG-MOLDLINE, based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

2. The maximum phenol content of any of the binder used for coating sand shall not exceed 1.1 percent by weight.[2] **(R 336. 1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall equip and maintain both Baghouse #789 and Baghouse #792 with a bag leak detection system. The permittee shall not operate either Baghouse #789 or Baghouse #792 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-03A or EU-03B unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM10, PM2.5, and/or phenol emission rates from SV-03 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**[2]

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. If testing is required, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205, Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, on a monthly and 12-month rolling time period basis, records of the sand usage rate and the binder usage rate. The permittee shall also keep a copy of the Certificate of Analysis of the binders, and calculations verifying the actual phenol in percent by weight. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1205(3), R 336.1225, Consent Order AQD No. 4-2017)**

3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders that were used during an entire month, and the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor 60 days following the last day of testing.[2] **(R 336.1205(3), R 336.1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017)**

4. The permittee shall continuously monitor and record the pressure drop across each baghouse on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall perform and record the results of a non-certified visible emissions check on FG-MOLDLINE at least once monthly, during operation, when FG-MOLDLINE is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-03	92[2]	150[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-MACTZZZZZ
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Huron Casting, Inc. is an existing large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1A. PM	0.8 lb per ton of metal charged[2]	Hourly Average	Any metal melting furnace at Huron Casting, Inc.	SC V.1 and VI.3	**40 CFR 63.10895(c)(1), Consent Order AQD No. 4-2017**
-OR-					
1B. Total Metal HAP	0.06 lb per ton of metal charged[2]	Hourly Average	Any metal melting furnace at Huron Casting, Inc.	SC V.1 and VI.3	**40 CFR 63.10895(c)(1), Consent Order AQD No. 4-2017**

2. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater 20 percent.[2] **(R 336.1358, 40 CFR 63.10895(e) of 40 CFR Part 63, Subpart ZZZZZ, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. If applicable, the permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a warm box mold or core making line. This requirement does not apply to the resin portion of the binder system.[2] **(40 CFR 63.10886, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
   a. Metallic scrap management program. **(40 CFR 63.10885(a))**
   b. Mercury requirements. **(40 CFR 63.10885(b))**

   The permittee shall revise the plan within 30 days after a change occurs.[2] **(40 CFR 63.10885, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any metal melting furnace at the iron and steel foundry unless a capture and collection system are installed, maintained, and operated in accordance with the American Conference of

Governmental Industrial Hygienists standards or equivalent unless the furnace is specifically uncontrolled as part of an emissions averaging group. **(40 CFR 63.10895(b), Consent Order AQD No. 4-2017)**[2]

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. By July 2, 2008, the permittee shall conduct a performance test to demonstrate initial compliance with PM emission limits for each metal melting furnace. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 40 CFR 63.10895 for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. The permittee shall conduct the performance tests as specified in Table 1 of 40 CFR Part 63, Subpart ZZZZZ. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

2. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR Part 63, Subpart ZZZZZ. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895 no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
   a. General facility and contact information;
   b. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
   c. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2); and
   d. Identity and estimated quantity of the replacement parts that will be maintained in inventory.

   The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in SC VI.2 to demonstrate compliance with the requirements for an O&M plan.[2] **(40 CFR 63.10896(a) and (b), Consent Order AQD No. 4-2017)**

2. The permittee shall perform periodic inspections and maintenance of each PM control device for each metal melting furnace. The permittee shall perform the initial and periodic inspections according to the requirements listed below and in 40 CFR 63.10897:[2]
   a. For the initial inspection of each baghouse, the permittee shall visually inspect the system ductwork and baghouse units for leaks and inspect the inside of each baghouse for structural integrity and fabric filter condition.[2] **(40 CFR 63.10897(a)(1))**
   b. For each subsequent inspection the permittee shall conduct monthly visual inspections of the system ductwork for leaks and conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.[2] **(40 CFR 63.10897(a)(1)(i) and (ii), Consent Order AQD No. 4-2017)**

3. The permittee may install, operate, and maintain a bag leak detection system for each baghouse as an alternative to the baghouse inspection requirements in SC VI.2. Each bag leak detection system must meet the

requirements of 40 CFR 63.10897(d)(1)(i) through (vii).[2] **(40 CFR 63.10897(d)(1), Consent Order AQD No. 4-2017)**

4. The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the facility O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. The plan shall include all information required per 40 CFR 63.10897 (d)(2)(i) through (vi).[2] **(40 CFR 63.10897(d)(2), Consent Order AQD No. 4-2017)**

5. In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the corrective action was initiated, the correction action taken, and the date on which corrective action was completed.[2] **(40 CFR 63.10897 (d)(3), Consent Order AQD No. 4-2017)**

6. The permittee shall perform monthly inspections of the equipment that is important to the performance of the total capture system. This inspection must include observations of the physical appearance of the equipment. The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency.[2] **(40 CFR 63.10897(e), Consent Order AQD No. 4-2017)**

7. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.[2] **(40 CFR 63.10897(g), Consent Order AQD No. 4-2017)**

8. The permittee shall keep records on a monthly basis as required by 40 CFR 63.10899(b)(1) through (13) as applicable. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 63.10899(b), Consent Order AQD No. 4-2017)**

9. The permittee shall comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 in 40 CFR Part 63, Subpart ZZZZZ.[2] **(40 CFR 63.10900, Consent Order AQD No. 4-2017)**

10. The notification of compliance status required by 40 CFR 63.9(h) shall include each applicable certification of compliance, signed by a responsible official, according to Table 4 in 40 CFR Part 63, Subpart ZZZZZ.[2] **(40 CFR 63.10900(b), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in 40 CFR 63.10(e). The reports must include, at a minimum, the following information as applicable:
   a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
   b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
   c. Summary information on any deviation from the pollution prevention management practices in 40 CFR 63.10885 and 63.10886 and the operation and maintenance requirements 40 CFR 63.10896 and the corrective action taken.[2] **(40 CFR 10899(c), Consent Order AQD No. 4-2017)**

2. If applicable, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that the facility has conducted periodic inspections or taken other means of corroboration as required under 40

CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment.[2] **(40 CFR 63.10899(b)(2)(i), Consent Order AQD No. 4-2017)**

3. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

4. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

5. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

7. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZZ for Iron and Steel Foundries by the initial compliance date.[2] **(40 CFR Part 63, Subparts A and ZZZZZ, Consent Order AQD No. 4-2017)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-1. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-1. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-1. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-1. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-1. Permits to Install

The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-B7013-2018. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6-1 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
115-16	All process equipment source-wide at both the Huron Casting, Inc. and Blue Diamond Steel Casting facilities including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EU-01, EU-02, EU-POURINGA, EU-03A, EU-03B, EU-TORCHES1-18, EU-05, EU-06, EU-07, EU-08, EU-09, EU-10A, EU-POURINGB, EU-MOLDLINEA, EU-MOLDLINEB, EU-MOLDLINEC, EU-TORCHES19-22, FG-POUR, FG-MOLDLINE, FG-MACTZZZZZ, FG-FACILITY, EU-NBFURNACE, EU-NBPOURANDCOOL, EU-NBCALCINER, EU-NBSAND, EU-NBMOLD, EU-SHELLFURNACE, EU-SHELLPOUR, EU-SHELLCOOL, EU-SHELLSAND, EU-SHELLCALCINER, EU-SHELLMOLD,

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
		EU-NBTORCHES, EU-SHELLTORCHES, EU-FINISHING, EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND, FG-BDSV01, FG-BDSV02, FG-BDSV03, FG-BDSV04, FG-BDSV05, FG-MACTZZZZZ

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B7013-2018.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
89-19	201900145 / December 4, 2019	This Minor Modification Application was to incorporate TPI 89-19 into the ROP. PTI 89-19 was to add two new shell molding machines to their existing molding line EU-MOLDLINE-C. The addition of the two new shell molding machines will not increase the binder usage at Huron Castings Inc. and cannot run all of the molding machines simultaneously due to: • The rate that the steel can be melted and poured into the molds; • Staffing in the Molding department; • The number of molds on hand that can be stored; • Customer orders which dictate the sizing of the mold required. Under normal operating conditions, 50% - 70% of the molding machines are operating at any given time. This is addressed in FG-MOLDLINE-S1 Conditions were also updated to be consistent with similar Condition's in each table in each Emission Unit and Flexible Group in Section 1.	EU-01-S1, EU-02-S1, EU-TORCHES1-18-S1, EU-05-S1, EU-06-S1, EU-07-S1, EU-08-S1, EU-09-S1, EU-10A-S1, FG-POUR-S1, FG-MOLDLINE-S1, FG-MACTZZZZZ-S1, Source-Wide

Appendix 7-1. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

SECTION 2 – BLUE DIAMOND STEEL CASTING LLC

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:" [2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee 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, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    d. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    e. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    f. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

e. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    f. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    g. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    h. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    i. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    j. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

47. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

SOURCE-WIDE CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Some emission units controlled with baghouses

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	59.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
2. PM2.5	11.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
3. VOC	50 lb/ton binder[2]	monthly average	All emission units located at the facility	SC VI.3 and VI.4	**R 336.2810 Consent Order AQD No. 4-2017**
4. VOC	98.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
5. Individual HAPs	8.9 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
6. Aggregate HAPs	22.4 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**
7. CO	4.8 lb/ton melt[2]	monthly average	All emission limits located at the facility	SC VI.3 and VI.4	**R 336.2810 Consent Order AQD No. 4-2017**
8. CO	345.6 tpy[2]	12-month rolling time period, as determined at the end of each calendar month.	All emission limits located at the facility	SC VI.3 and VI.4	**R 336.1205(3) Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

1. The permittee shall not melt more than 144,000 tons of metal per year based on a 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall not melt more than 72,000 tons per year of steel at Huron Casting, Inc. based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

3. The permittee shall not melt more than 72,000 tons per year of steel at Blue Diamond Steel Casting based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

4. The permittee shall not use more than 1,026 MMcf per year of natural gas, based on a 12-month rolling time period, as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

5. The permittee shall not process a combined total of more than 3,870 tons of binder per year in FG-MOLDLINE, FG-BDSV03, FG-BDSV04, and FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each emission unit that is subject to an emission limit more than 7,000 hours per year based on a 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall not operate any of the 29 baghouses at the facility unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted to the AQD District Supervisor within 180 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of metal melted in tons per month, as required by SC II.1, II.2, and II.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205, R 336.1220, R 336.1225, Consent Order AQD No. 4-2017)**

3. The permittee shall have an approved spreadsheet for approval by the AQD District Supervisor to calculate all emissions as specified in SC I.1 through I.8, based on material usage rates and emission factors.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM10, PM2.5, VOCs, individual and aggregate HAPs, and CO emission calculation records, as required by SC I.1, I.2, I.3, I.4, I.5, I.6, I.7, and I.8. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period operating hour records for each emission unit, that is subject to an emission limit, as required by SC III.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of natural gas usage rates, as required by SC II.4. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of binder usage rates, as required by SC II.5. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

C. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-NBFURNACE	The no-bake furnace line consists of three electric induction furnaces: two 8-ton capacity melt furnaces, one electric arc ladle reheat station, and a vacuum degassing unit for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-01) and a 80,000 cfm baghouse (BH-22) with the exhaust re-circulated to an area behind the furnace hoods.	12/14/2009 10/11/2016	NA
EU-NBPOURANDCOOL	The no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). Stack ID: SV-01	12/14/2009	FG-BDSV01
EU-NBCALCINER	The calciner is used to destroy the binder material in the mold facing and core sand by heating it to 1,200˚F before the sand is returned to the sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). Stack ID: SV-03	12/23/2009	FG-BDSV03
EU-NBSAND	The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04). Stack ID: SV-03	12/23/2009	FG-BDSV03
EU-NBMOLD	The moldmaking process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. No control. Stack ID: NA	12/08/2009	NA
EU-SHELLFURNACE	The shell furnace line consists of three 8-ton capacity electric induction furnaces for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-06) with the exhaust re-circulated back into the furnace hoods.	12/14/2009	NA
EU-SHELLPOUR	This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-05). Stack ID: SV-04	12/14/2009	FG-BDSV04

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-SHELLCOOL	The shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07). Stack ID: SV-01	12/14/2009	FG-BDSV01
EU-SHELLSAND	The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). Stack ID: SV-04	12/23/2009	FG-BDSV04
EU-SHELLCALCINER	This emission unit includes the sand coater and the calciner. The sand coater blends the sand and binder. The calciner destroys the binder material in the mold facing and core sand from the shell line by heating it to 1,200˚ F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). Stack ID: SV-02	12/08/2009	FG-BDSV02
EU-SHELLMOLD	This emission unit prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm exhausted through stack SV-02. Includes numerous~~22~~ core machines which emit to the in-plant environment. Each heat treat furnace is rated at 9.9 MMBTU/hr. Stack ID: SV-02	12/08/2009 03/2018	FG-BDSV02
EU-NBTORCHES	No-bake cutting torches with the exhaust emitted into the cutting area.	12/08/2009	NA
EU-SHELLTORCHES	Shell cutting torches with the exhaust re-circulated back into the cutting area.	12/08/2009	NA
EU-FINISHING	The finishing process consists of grinders, shot blast, cut-off saws, wheelabrators, and welders. The process is controlled by a 30,000 cfm baghouse (BH-10) with the exhaust re-circulated back into the finishing area.	12/2009	NA
EU-SHELL2POUR	This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18). Stack ID: SV-05	07/21/2014	FG-BDSV05
EU-SHELL2COOL	The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each. Stack ID: SV-05	07/21/2014	FG-BDSV05
EU-SHELL2SAND	The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17). Stack ID: SV-05	07/21/2014	FG-BDSV05

EU-NBFURNACE
EMISSION UNIT CONDITIONS

DESCRIPTION

The no-bake furnace line consists of three electric induction furnaces: two 8-ton capacity melt furnaces, one electric arc ladle reheat station, and a vacuum degassing unit for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-01) and a 80,000 cfm baghouse (BH-22) with the exhaust re-circulated to an area behind the furnace hoods.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	EU-NBFURNACE	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	2.14 pph[2]	Hourly	EU-NBFURNACE	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.5 pph[2]	Hourly	EU-NBFURNACE	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse BH-01 with a bag leak detection system. The permittee shall not operate Baghouse BH-01 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall equip and maintain Baghouse BH-22 with a bag leak detection system. The permittee shall not operate Baghouse BH-22 unless the bag leak detection system is installed and operating properly. **(R 336.1225, R 336.1910, R 336.1213(3), Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request of the AQD District Supervisor, the permittee shall verify PM and PM10 emission rates from EU-NBFURNACE by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1205, R 336.2810, Consent Order AQD No. 4-2017)**

2. Upon request of the AQD District Supervisor, the permittee shall provide the hood capture system design specifications, operating procedures and a signed certification package from a qualified contractor certifying that proper operation of the hood capture system as installed will achieve no less than 90 percent collection efficiency from EU-NBFURNACE. The verification shall include a description of the appropriate operating conditions for the furnace and exhaust gas flow rate to the baghouse control device as correlated to the hood collection efficiency during proper operation of the hood capture system.[2] **(R 336.1205(1)(a) & (b), Consent Order AQD No. 4-2017)**

3. Upon request of the AQD District Supervisor, the permittee shall conduct the initial smoke test for verifying capture efficiency of the EU-NBFURNACE hood capture system, by in-plant testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission limits includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1205, R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2802, R 330.2810, Consent Order AQD No. 4-2017)**

4. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, monthly records of tons of steel melted for EU-NBFURNACE. All records shall be kept on file at the facility and made available to the Department upon request.[2] **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**

3. The permittee shall monitor and record, in a satisfactory manner, the negative pressure using a magnehelic gauge at the inlet side of the baghouse BH-01 for EU-NBFURNACE on a daily basis during operation of EU-NBFURNACE to verify that the hood system capture velocity as designed is achieved in practice. The permittee shall also conduct an initial and annual inspection and verification that negative pressure in the duct from the hood to the baghouse conforms with the ACGIH minimum requirements.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.[2] **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.[2] **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBFURNACE directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-NBMOLD
EMISSION UNIT CONDITIONS

DESCRIPTION

The mold making process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. No control.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 1,550 tons of binder per year in EU-NBMOLD based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for EU-NBMOLD, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205 (3), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBMOLD directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-SHELLFURNACE
EMISSION UNIT CONDITIONS

DESCRIPTION

The shell furnace line consists of three 8-ton capacity electric induction furnaces for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-06) with the exhaust re-circulated back into the furnace hoods.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	EU-SHELLFURNACE	SC V.1	**R 336.1205 (3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	2.14 pph[2]	Hourly	EU-SHELLFURNACE	SC V.1	**R 336.1205 (3), R 336.2803, R 336.2804, R 336.1910, Consent Order AQD No. 4-2017**
3. PM2.5	0.5 pph[2]	Hourly	EU-SHELLFURNACE	SC V.1	**R 336.1205 (3), R 336.2803, R 336.2804, R 336.1910, Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse BH-06 with a bag leak detection system. The permittee shall not operate Baghouse BH-06 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Within 90 days after notification from AQD, the permittee shall verify PM, PM10 and PM2.5 emission rates from EU-SHELLFURNACE by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and

District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336. 1205(3), R 336.2803, R 336.2804, R 336.281, 40 CFR 52.21(c)& (d))**

Reference Test Method Table

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10 / PM2.5	40 CFR Part 51, Appendix M

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, monthly records of tons of steel melted for EU-SHELLFURNACE. All records shall be kept on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**

3. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-SHELLFURNACE directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-NBTORCHES
EMISSION UNIT CONDITIONS

DESCRIPTION

No-bake cutting torches with the exhaust emitted into the cutting area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii)**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBTORCHES directly into the ambient atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-SHELLTORCHES
EMISSION UNIT CONDITIONS

DESCRIPTION

Shell cutting torches with the exhaust emitted into the cutting area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-SHELLTORCHES directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

EU-FINISHING
EMISSION UNIT CONDITIONS

DESCRIPTION

The finishing process consists of grinders, shot blast, cut-off saws, wheelabrators, and welders. The process is controlled by a 30,000 cfm baghouse (BH-10) with the exhaust re-circulated back into the finishing area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse BH-10, 30,000 cfm

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.004 lb/1000 lbs of exhaust gases on a dry basis[2]	Hourly	EU-FINISHING	SC VI.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.5 pph[2]	Hourly	EU-FINISHING	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.5 pph[2]	Hourly	EU-FINISHING	SC VI.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-FINISHING unless enclosure and BH-10 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse BH-10 with a bag leak detection system. The permittee shall not operate Baghouse BH-10 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.[2] **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-FINISHING directly into the atmosphere.[2] **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-BDSV01	Emission units exhausted through stack SV-01. EU-NBPOURANDCOOL, the no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). And EU-SHELLCOOL: The shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07).	EU-NBPOURANDCOOL, EU-SHELLCOOL
FG-BDSV02	Emission units exhausted through stack SV-02. EU-SHELLCALCINER: This emission unit includes the sand coater and the calciner. The sand coater blends the sand and binder. The calciner destroys the binder material in the mold facing and core sand from the shell line by heating it to 1,200˚F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). And EU-SHELLMOLD which prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm. Includes 22 core machines which emit to the in-plant environment and two natural gas fired heat treat furnaces. Each heat treat furnace is rated at 9.9 MMBTU/hr.	EU-SHELLCALCINER, EU-SHELLMOLD
FG-BDSV03	Emission units exhausted through stack SV-03. EU-NBCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand by heating it to 1,200˚F (minimum) before the sand is returned to the sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). EU-NBSAND: The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04).	EU-NBCALCINER, EU-NBSAND
FG-BDSV04	Emission units exhausted through stack SV-04 EU-SHELLSAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). EU-SHELLPOUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse	EU-SHELLSAND, EU-SHELLPOUR

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-BDSV05	Emission units exhausted through stack SV-05. EU-SHELL2POUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18). EU-SHELL2COOL: The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each. EU-SHELL2SAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17).	EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND
FG-MACTZZZZZ (conditions listed after the Blue Diamond Steel Casting conditions)	The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Blue Diamond Steel Casting is a new large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.	

FG-BDSV01
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units exhausted through stack SV-01. EU-NBPOURANDCOOL, the no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). EU-SHELLCOOL, the shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07).

Emission Unit: EU-NBPOURANDCOOL, EU-SHELLCOOL

POLLUTION CONTROL EQUIPMENT

Baghouses BH-02 and BH-07

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	FG-BDSV01	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	0.260 pph[2]	Hourly	FG-BDSV01	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.052 pph[2]	Hourly	FG-BDSV01	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from FG-BDSV01 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-NBPOURANDCOOL portion of FG-BDSV01 unless enclosure and BH-02 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205,**

R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate EU-SHELLCOOL portion of FG-BDSV01 unless enclosure and BH-07, are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall equip and maintain both Baghouse BH-02 and Baghouse BH-07 with a bag leak detection system. The permittee shall not operate either Baghouse BH-02 or Baghouse BH-07 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV01 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**[2]

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM 2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV01 at least once monthly, during operation, when FG-BDSV01 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-01	64[2]	125[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BDSV02
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units exhausted through stack SV-02. EU-SHELLCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand from the shell line by heating it to 1,200˚F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). EU-SHELLMOLD, the mold making process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm. Includes 22 core machines which emit to the in-plant environment and two natural gas fired heat treat furnaces. Each heat treat furnace is rated at 9.9 MMBTU/hr.

Emission Unit: EU-SHELLCALCINER, EU-SHELLMOLD

POLLUTION CONTROL EQUIPMENT

Baghouse BH-09

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	FG-BDSV02	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	1.650 pph[2]	Hourly	FG-BDSV02	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.330 pph[2]	Hourly	FG-BDSV02	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from FG-BDSV02 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in EU-SHELLMOLD portion of FG-BDSV02 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-SHELLCALCINER portion of FG-BDSV02 unless a minimum temperature of 1,200˚F of the calcining furnace is maintained.[1] **(R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate the EU-SHELLCALCINER portion of FG-BDSV02 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of

permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

3. The permittee shall not combust any fuel, other than natural gas, in the heat treat furnaces in EUSHELLMOLD.[2] **(R 336.1205(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SHELLCALCINER portion of FG-BDSV02 unless enclosure and BH-09 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall equip and maintain Baghouse BH-09 with a bag leak detection system. The permittee shall not operate Baghouse BH-09 unless the bag leak detection system is installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature of EU-SHELLCALCINER portion of FG-BDSV02 on a continuous basis.[2] **(R 336.1301, R 336.1331, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV02 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**[2]

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), R 336.1910, Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, temperature records for EU-SHELLCALCINER portion of FG-BDSV02, as required by SC IV.3. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1301, R 336.1331, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for EU-SHELLMOLD portion of FG-BDSV02, as required by SC II.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205 (3), Consent Order AQD No. 4-2017)**

4. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV02 at least once monthly, during operation, when FG-BDSV02 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-02	47[2]	55[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BDSV03
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units exhausted through stack SV-03. EU-NBCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand from the no-bake line by heating it to 1,200°F (minimum) before the sand is returned to the no-bake sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). EU-NBSAND: The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04).

Emission Unit: EU-NBCALCINER, EU-NBSAND

POLLUTION CONTROL EQUIPMENT

Baghouses BH-03 and BH-04

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	FG-BDSV03	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	1.61 pph[2]	Hourly	FG-BDSV03	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.322 pph[2]	Hourly	FG-BDSV03	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from FG-BDSV03 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 1,550 tons of binder per year in FG-BDSV03 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-NBCALCINER portion of FG-BDSV03 unless a minimum temperature of 1,200°F of the calcining furnace is maintained.[1] **(R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate the EU-NBCALCINER portion of FG-BDSV03 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule

912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-NBCALCINER portion of FG-BDSV03 unless enclosure and BH-03 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature of EU-NBCALCINER portion of FG-BDSV03 on a continuous basis.[2] **(R 336.1301, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall not operate EU-NBSAND portion of FG-BDSV03 unless enclosure and BH-04 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

4. The permittee shall equip and maintain both Baghouse BH-03 and Baghouse BH-04 with a bag leak detection system. The permittee shall not operate either Baghouse BH-03 or Baghouse BH-04 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV03 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing.[2] **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3), R 336.1910, Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, temperature records for EU-NBCALCINER portion of FG-BDSV03, as required by SC IV.3. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

3. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV03, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

4. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV03 at least once monthly, during operation, when FG-BDSV03 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-03	43[2]	75[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BDSV04
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units exhausted through stack SV-04 EU-SHELLSAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). EU-SHELLPOUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-05).

Emission Unit: EU-SHELLSAND, EU-SHELLPOUR

POLLUTION CONTROL EQUIPMENT

Baghouses BH-08 and BH-05

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	FG-BDSV04	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	1.430 pph[2]	Hourly	FG-BDSV04	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.286 pph[2]	Hourly	FG-BDSV04	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from FG-BDSV04 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in FG-BDSV04 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SHELLPOUR portion of FG-BDSV04 unless enclosure and BH-05 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate EU-SHELLSAND portion of FG-BDSV04 unless enclosure and BH-08 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall equip and maintain both Baghouse BH-05 and Baghouse BH-08 with a bag leak detection system. The permittee shall not operate either Baghouse BH-05 or Baghouse BH-08 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV04 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**[2]

2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(1)(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV04, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

3. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV04 at least once monthly, during operation, when FG-BDSV04 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
   b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-04	53[2]	125[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-BDSV05
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Emission units exhausted through stack SV-05. EU-SHELL2POUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18). EU-SHELL2COOL: The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each. EU-SHELL2SAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17). ~~(PTI 115-16)~~

Emission Unit: EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND

POLLUTION CONTROL EQUIPMENT

Baghouses BH-18, BH-19, and BH-17

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf[2]	Hourly	FG-BDSV05	SC V.1	**R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017**
2. PM10	1.680 pph[2]	Hourly	FG-BDSV05	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**
3. PM2.5	0.336 pph[2]	Hourly	FG-BDSV05	SC V.1	**R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017**

4. Visible emissions from FG-BDSV05 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SHELL2SAND portion of FG-SHELLSAND unless the enclosure (shell cooling room) and BH-17 are installed, maintained, and operated in accordance with the manufacturer's

recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

2. The permittee shall not operate EU-SHELL2POUR portion of FG-BDSV05 unless the enclosure (shell cooling room) and BH-18 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

3. The permittee shall not operate EU-SHELL2COOL portion of FG-BDSV05 unless the enclosure (shell cooling room) and BH-19 are installed, maintained, and operated in accordance with the manufacturer's recommendations.[2] **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

4. The permittee shall equip and maintain Baghouse BH-17, Baghouse BH-18, and Baghouse BH-19 with a bag leak detection system. The permittee shall not operate Baghouse BH-17, Baghouse BH-18, or Baghouse BH-19 unless their respective bag leak detection systems are installed and operating properly.[2] **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV05 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**[2]

3. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV05, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV05 at least once monthly, during operation, when FG-BDSV05 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
   a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.

b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-05	84[2]	150[2]	**R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FG-RULE 290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201; pursuant to Rules 278, 278a, and 290.

Emission Unit: BD-Heat Treat Furnace and any future emission unit that meets the requirements of this flexible group.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**

2. Each emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
   a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively.
   (R 336.1290(2)(a)(ii)(A))
   b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
   c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
   d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month. **(R 336.1290(2)(a)(ii)(D))**
   e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month. **(R 336.1290(2)(a)(ii)(E))**

3. Each emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all of the following provisions are met: **(R 336.1290(2)(a)(iii))**
   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**
   b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
   c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

2. The following requirements apply to emission units utilizing control equipment:
   b. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following: **(R 336.1290(2)(b)(i))**
      i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.
      ii. Wet scrubbers equipped with a liquid flow rate monitor.
      iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.
   c. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the owner or operators shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**
   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**
   e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**
   f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**

b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

If the permittee chooses to use record form EQP 3558 for its Rule 290 emission unit(s), the permittee has the option of placing the form in Appendix 4 of the ROP. The latest version of the form is available on the EGLE-AQD website. The permittee is not required to include record form EQP 3558 in their ROP.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-MACTZZZZZ
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Blue Diamond Steel Casting is a new large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1A. PM	0.1 lb per ton of metal charged[2]	Hourly	Any metal melting furnace at Blue Diamond Steel Casting	SC V.1 and VI.3	**40 CFR 63.10895(c)(2), Consent Order AQD No. 4-2017**
-OR-					
1B. Total Metal HAP	0.008 lb per ton of metal charged[2]	Hourly	Any metal melting furnace at Blue Diamond Steel Casting	SC V.1 and VI.3	**40 CFR 63.10895(c)(2), Consent Order AQD No. 4-2017**

2. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater 20 percent.[2] **(R 336.1358, 40 CFR 63.10895(e) of 40 CFR Part 63, Subpart ZZZZZ, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. If applicable, the permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a warm box mold or core making line. This requirement does not apply to the resin portion of the binder system.[2] **(40 CFR 63.10886, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
   a. Metallic scrap management program. **(40 CFR 63.10885(a))**
   b. Mercury requirements. **(40 CFR 63.10885(b))**

   The permittee shall revise the plan within 30 days after a change occurs.[2] **(40 CFR 63.10885, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any metal melting furnace at the iron and steel foundry unless a capture and collection system are installed, maintained, and operated in accordance with the American Conference of

Governmental Industrial Hygienists standards or equivalent unless the furnace is specifically uncontrolled as part of an emissions averaging group. **(40 CFR 63.10895(b), Consent Order AQD No. 4-2017)**[2]

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. By July 2, 2008, the permittee shall conduct a performance test to demonstrate initial compliance with PM emission limits for each metal melting furnace. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 40 CFR 63.10895 for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. The permittee shall conduct the performance tests as specified in Table 1 of 40 CFR Part 63, Subpart ZZZZZ. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

2. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR Part 63, Subpart ZZZZZ. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895 no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
   a. General facility and contact information;
   b. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
   c. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2); and
   d. Identity and estimated quantity of the replacement parts that will be maintained in inventory.

   The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in SC VI.2 to demonstrate compliance with the requirements for an O&M plan.[2] **(40 CFR 63.10896(a) and (b), Consent Order AQD No. 4-2017)**

2. The permittee shall perform periodic inspections and maintenance of each PM control device for each metal melting furnace. The permittee shall perform the initial and periodic inspections according to the requirements listed below and in 40 CFR 63.10897:[2]
   a. For the initial inspection of each baghouse, the permittee shall visually inspect the system ductwork and baghouse units for leaks and inspect the inside of each baghouse for structural integrity and fabric filter condition.[2] **(40 CFR 63.10897(a)(1))**
   b. For each subsequent inspection the permittee shall conduct monthly visual inspections of the system ductwork for leaks and conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.[2] **(40 CFR 63.10897(a)(1)(i) and (ii), Consent Order AQD No. 4-2017)**

3. The permittee may install, operate, and maintain a bag leak detection system for each baghouse as an alternative to the baghouse inspection requirements in SC VI.2. Each bag leak detection system must meet the

requirements of 40 CFR 63.10897(d)(1)(i) through (vii).[2] **(40 CFR 63.10897(d)(1), Consent Order AQD No. 4-2017)**

4. The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the facility O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. The plan shall include all information required per 40 CFR 63.10897 (d)(2)(i) through (vi).[2] **(40 CFR 63.10897(d)(2), Consent Order AQD No. 4-2017)**

5. In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the corrective action was initiated, the correction action taken, and the date on which corrective action was completed.[2] **(40 CFR 63.10897 (d)(3), Consent Order AQD No. 4-2017)**

6. The permittee shall perform monthly inspections of the equipment that is important to the performance of the total capture system. This inspection must include observations of the physical appearance of the equipment. The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency.[2] **(40 CFR 63.10897(e), Consent Order AQD No. 4-2017)**

7. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.[2] **(40 CFR 63.10897(g), Consent Order AQD No. 4-2017)**

8. The permittee shall keep records on a monthly basis as required by 40 CFR 63.10899(b)(1) through (13) as applicable. The permittee shall keep all records on file at the facility and make them available to the Department upon request.[2] **(40 CFR 63.10899(b), Consent Order AQD No. 4-2017)**

9. The permittee shall comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 in 40 CFR Part 63, Subpart ZZZZZ.[2] **(40 CFR 63.10900, Consent Order AQD No. 4-2017)**

10. The notification of compliance status required by 40 CFR 63.9(h) shall include each applicable certification of compliance, signed by a responsible official, according to Table 4 in 40 CFR Part 63, Subpart ZZZZZ.[2] **(40 CFR 63.10900(b), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in 40 CFR 63.10(e). The reports must include, at a minimum, the following information as applicable:
   a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
   b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
   c. Summary information on any deviation from the pollution prevention management practices in 40 CFR 63.10885 and 63.10886 and the operation and maintenance requirements 40 CFR 63.10896 and the corrective action taken.[2] **(40 CFR 10899(c), Consent Order AQD No. 4-2017)**

2. If applicable, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification

that the facility has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment.[2] **(40 CFR 63.10899(b)(2)(i), Consent Order AQD No. 4-2017)**

3. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

4. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

5. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

7. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZZ for Iron and Steel Foundries by the initial compliance date.[2] **(40 CFR Part 63, Subparts A and ZZZZZ, Consent Order AQD No. 4-2017)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-2. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-2. Permits to Install

The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-B7013-2018. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6-2 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
115-16	All process equipment source-wide at both the Huron Casting, Inc. and Blue Diamond Steel Casting facilities including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EU-01, EU-02, EU-POURINGA, EU-03A, EU-03B, EU-TORCHES1-18, EU-05, EU-06, EU-07, EU-08, EU-09, EU-10A, EU-POURINGB, EU-MOLDLINEA, EU-MOLDLINEB, EU-MOLDLINEC, EU-TORCHES19-22, FG-POUR, FG-MOLDLINE, FG-MACTZZZZZ, FG-FACILITY, EU-NBFURNACE, EU-NBPOURANDCOOL, EU-NBCALCINER, EU-NBSAND, EU-NBMOLD, EU-SHELLFURNACE, EU-SHELLPOUR, EU-SHELLCOOL, EU-SHELLSAND,

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
		EU-SHELLCALCINER, EU-SHELLMOLD, EU-NBTORCHES, EU-SHELLTORCHES, EU-FINISHING, EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND, FG-BDSV01, FG-BDSV02, FG-BDSV03, FG-BDSV04, FG-BDSV05, FG-MACTZZZZZ

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B7013-2018.

Permit to Install Number	ROP Revision Application Number / Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
89-19	201900145 / December 4, 2019	This Minor Modification Application was to incorporate PTI No. 89-19 into the ROP. PTI No. 89-19 was to add two new shell molding machines to their existing molding line EU-MOLDLINE-C in Section 1 of the ROP. Some of the PTI changes also updated Conditions in Section 2 and Source-Wide Conditions in the ROP. Conditions were also updated to be consistent with similar Condition's in each table in each Emission Unit and Flexible Group in Section 2. The Company clarified that the no-bake furnace line (EU-NBFURNACE) consists of BH-01 and BH-22 for a total of 130,000 cfm of exhaust that is recirculated in plant to an area behind the furnace hoods.	EU-NBFURNACE, EU-NBMOLD, FG-BDZV04, Source-Wide

Appendix 7-2. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

January 29, 2020

PERMIT TO INSTALL
187-19

ISSUED TO
Huron Casting, Incorporated

LOCATED AT
7050 Hartley Street
Pigeon, Michigan

IN THE COUNTY OF
Huron

STATE REGISTRATION NUMBER
B7013

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **January 6, 2020**	
DATE PERMIT TO INSTALL APPROVED: **January 29, 2020**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUEMERGENCY	MTU Diesel Generator, A 3,353-hosepower diesel-fired emergency engine with a 4.77-liter displacement	TBD	NA

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EUEMERGENCY
EMISSION UNIT CONDITIONS

DESCRIPTION

MTU Diesel Generator, A 3,353-hosepower diesel-fired emergency engine with a 4.766-liter displacement.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NOx	6.4 g/kW-hr	Hourly	EUEMERGENCY	SC VI.4	40 CFR 60.4205(b), 40 CFR 60.4202(b), 40 CFR 89.112 Table 1
2. CO	3.5 g/kW-hr	Hourly	EUEMERGENCY	SC VI.4	40 CFR 60.4205(b), 40 CFR 60.4202(b), 40 CFR 89.112 Table 1
3. PM	0.20 g/kW-hr	Hourly	EUEMERGENCY	SC VI.4	40 CFR 60.4205(b), 40 CFR 60.4202(b), 40 CFR 89.112 Table 1

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel, in EUEMERGENCY with the maximum sulfur content of 15 ppm (0.0015 percent) by weight. **(R 336.1205, R 336.1225, 40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not allow EUEMERGENCY to exceed 100 hours per calendar year for maintenance checks and readiness testing and emergency demand response. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. **(40 CFR 60.4211(f)(2))**

2. The permittee may operate EUEMERGENCY up to 50 hours per calendar year for non-emergency situations, but those hours are to be counted towards the 100 hours per calendar year for maintenance and testing and emergency demand response, as allowed in 40 CFR 63.6640(f)(2). **(40 CFR 60.4211(f)(3))**

3. The permittee shall install, maintain, and operate EUEMERGENCY according to the manufacturer written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine. **(40 CFR 60.4206, 40 CFR 60.4211(a))**

4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart IIII, for the same model year, the permittee shall meet the following requirements for EUEMERGENCY:
   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.
   b) Keep a maintenance plan and the permittee may only change those engine settings that are permitted by the manufacturer. If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine.
   c) Meet the requirements as specified in 40 CFR Parts 89, 94, and/or 1068, as they apply to EUEMERGENCY.
   (40 CFR 60.4211(a), (c), (g))

5. The permittee shall not operate EUEMERGENCY for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))**

6. The permittee shall not operate EUEMERGENCY for more than 200 hours per month. **(R 336.1225)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUEMERGENCY with non-resettable hours meters to track the operating hours. **(40 CFR 60.4209(a))**

2. The nameplate capacity of EUEMERGENCY shall not exceed 2,500 kW, as certified by the equipment manufacturer. **(R 336.1205, R 336.1225, R 336.1702, 40 CFR 60.4202, 40 CFR 89.112(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall conduct an initial performance test for EUEMERGENCY, within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205(b), unless the engines have been certified by the manufacturer as required by 40 CFR Part 60 Subpart IIII and the permittee maintains the engine as required by 40 CFR 60.4211. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. After conducting the initial performance test, the permittee shall conduct subsequent performance testing, for non-certified engines, every 8,760 hours or 3 years, whichever comes first. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4205(b), 40 CFR 60.4211(g), 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, the following records for EUEMERGENCY:
   a) For a certified engine: The permittee shall keep records of the manufacturer certification documentation.
   b) For an uncertified engine: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

2. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EUEMERGENCY:
   a) For a certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.4.

b) For an uncertified engine: The permittee shall keep records of a maintenance plan and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall monitor and record, the total hours of operation for EUEMERGENCY on a monthly and 12-month rolling time period basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hours meter for EUEMERGENCY, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of EUEMERGENCY, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 60.4214(b))**

4. The permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification documentation indicating EUEMERGENCY meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. If any engine in EUEMERGENCY becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211(g))**

5. The permittee shall keep, in a satisfactory manner, records of the diesel fuel used in EUEMERGENCY, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510(b). The records shall include the sulfur content of the fuel and the cetane index. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 60.4207, 40 CFR 80.510(b))**

VII. REPORTING

1. Within 30 days after completion of the installation of EUEMERGENCY as authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether EUEMERGENCY will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart IIII)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEMERGENCY	18	15	**40 CFR 52.21 (c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the New Source Performance Standards, as specified in 40 CFR, Part 60, Subpart A and Subpart IIII, as they apply. **(40 CFR Part 60, Subparts A and IIII, 60.4200)**

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines by the initial compliance date. **(40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)**

DATE:_____ **HCI DUST COLLECTOR DAILY MONITORING** **DATE:_____**

OPERATION	DIFF PRESSURE	BROKEN BAG ALARM	VISIBLE EMISSIONS
Dust Collector:		**Write YES to all that apply**	
484 E			
484 W			
553			
554			
616			
618			
774			
775			
776			
787			
788			
789			
790			
791			
792			
864			
880			
1001			
Stack:	VISIBLE STACK EMISSIONS? Y or N		
SV-01	774		Y / N
SV-02	788		Y / N
SV-03	Molding, 789, 792		Y / N
SV-04	Torching		Y / N
SV-05	791		Y / N
SV-06	787		Y / N
SV-07	484E, 484W, 1001		Y / N
SV-09	618		Y / N
SV-10A	776, 864		Y / N

BUILDING STATIC PRESSURE:

OPERATION	DIFF PRESSURE	BROKEN BAG ALARM	VISIBLE EMISSIONS
Dust Collector:		**Write YES to all that apply**	
484 E			
484 W			
553			
554			
616			
618			
774			
775			
776			
787			
788			
789			
790			
791			
792			
864			
880			
1001			
Stack:	VISIBLE STACK EMISSIONS: Y or N		
SV-01	774		Y / N
SV-02	788		Y / N
SV-03	Molding, 789, 792		Y / N
SV-04	Torching		Y / N
SV-05	791		Y / N
SV-06	787		Y / N
SV-07	484E, 484W, 1001		Y / N
SV-09	618		Y / N
SV-10A	776, 864		Y / N

DATE:_____ **BDSC DUST COLLECTOR DAILY MONITORING** **DATE:_____**

OPERATION	DIFF PRESSURE	BROKEN BAG ALARM	VISIBLE EMISSIONS
Dust Collector:		**Write YES to all that apply**	
71101			
71102			
71105			
71106			
71107			
71108			
71109			
71110			
71111			
71112			
71113			
71114			
71115			
71117			
71118			
71119-A			
71119-B			
71123			
71124			
71125			
71223			
Stack:	VISIBLE STACK EMISSIONS? Y or N		
SV-01	71109, 71110		Y / N
SV-02	Molding, 71102		Y / N
SV-03	71107, 71108		Y / N
SV-04	71113, 71114		Y / N
SV-05	71117, 71118, 71119A&B		Y / N

OPERATION	DIFF PRESSURE	BROKEN BAG ALARM	VISIBLE EMISSIONS
Dust Collector:		**Write YES to all that apply**	
71101			
71102			
71105			
71106			
71107			
71108			
71109			
71110			
71111			
71112			
71113			
71114			
71115			
71117			
71118			
71119-A			
71119-B			
71123			
71124			
71125			
71223			
Stack:	VISIBLE STACK EMISSIONS: Y or N		
SV-01	71109, 71110		Y / N
SV-02	Molding, 71102		Y / N
SV-03	71107, 71108		Y / N
SV-04	71113, 71114		Y / N
SV-05	71117, 71118, 71119A&B		Y / N

QUALITY MANAGEMENT SYSTEM PROCEDURE BLUE DIAMOND STEEL CASTING, LLC 125 STURM RD. PIGEON, MICHIGAN 48755		
EFFECTIVE DATE: August 26, 2021	REVISION LEVEL: (8)	Document #: SOP MA.03
WRITTEN BY: MIKE PETERSON	APPROVED BY: BRIAN DUNWOODIE	
RESPONSIBILITY: Electrical Engineer/Maintenance Supervisor		

SUBJECT: Dust Collector Preventative Maintenance & Monitoring,

DEFINITION:

A. Daily Inspections of All Dust Collector Bag-houses

1. Designated maintenance personnel will, on a daily basis:

    a. Read and record the pressure reading on all dust collector bag-houses. (Form FN3-018)
    b. Observe if there are any visible emissions from any of the stacks.
    c. Observe the red/green indicating light for the broken bag detectors.
    d. Visually inspect for foreign matter and debris.

2. Corrective Action Plan:

    a. Verify bag cleaning mechanism is functioning properly, repair or adjust as needed.
    b. If any there are any visible emissions from the stack notify electrical engineer or maintenance supervisor.
    c. Electrical engineer or maintenance supervisor or their designated person will assess severity. If visible emissions exceed six minutes, averaging 5% opacity, bags will be inspected within 24 hours.
    d. If broken bag detector light is red, notify maintenance supervisor or electrical engineer. Maintenance supervisor electrical engineer, or designated backup will inspect bags within 24 hours.

3. Records:
    a. Hard copies of daily recordings will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.

    b. Records will be kept for five years and are on file in Building/Grounds Office or stored electronically.

4. Preventive Maintenance:

    a. Inspect bags every 6 months.

B. Broken Bag Detectors

(All dust collector bag-houses have broken bag detectors)
(In addition to a green/red lights, broken bag detectors are connected to PLCs.)

1. If broken bag detector is activated, an alarm is sent via e-mail to the electrical engineer, maintenance supervisor, and the plant engineer.

2. Corrective Action Plan:

   a. Within 24 hours of receipt of alarm, bags will be inspected.

3. Preventive Maintenance:

   a. Every six(6) months the broken bag detectors will be checked for proper function and inspected per manufacturer's recommendations.*(See PM 541 instructions)*

4. Records:
   a. Hard copies of corrective actions will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.
   b. Hard copies of broken bag detector preventative maintenance will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.

C. Dust Collector Bag-houses 71105 (Shell Furnace), 71106 and 71125 (No Bake Furnace)

1. Bag leak detection system's particulate is monitored by particulate monitors which are continuously monitored via PLCs as long as the dust collector fans are running. In case of leakage:

   a. An audio/visual alarm on the furnace's pour deck will activate. At the alarm is a sign which instructs the melt foreman to immediately notify the maintenance supervisor.
   b. Within one hour of the alarm, corrective action for determining the cause of the alarm will be initiated.

(If alarm is not addressed within one hour, dust collector motor will automatically shut down)

   c. Within 24 hours, corrective action to correct the cause of the alarm will be initiated
   d. corrective action must be completed within 10 days.

2. Preventive Maintenance

   a. Check proper function per manufacturer’s specifications or every 6 months which ever is shorter.(See P.M. 549 instruction)

3. Records
   a. Hard copies of particulate monitor preventative maintenance will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.

D. Melting and Cooling Room Dust Collector Run Requirements

1. Dust collectors associated with pour hoods and cooling rooms are to be running and remain running for entirety of melt and pour.

    a. Shell 1- 71105 (hood) and 71110 (cooling room)
    b. Shell 2- 71105 (hood), 71118 (pour line), 71119a and 71119b (cooling room)
    c. No-Bake-71106,71125 (hoods) and 71109 (cooling room)

2. If any of the dust collectors fail to run while their respective pour line is in process:

    a. An audio/visual alarm on the furnace's pour deck will activate. At the alarm is a sign which instructs the melt foreman to immediately notify the maintenance supervisor.
    b. Within one hour of the alarm, corrective action for determining the cause of the alarm will be initiated.

(If alarm is not addressed within one hour, dust collector motor will automatically shut down)

    c. Within 24 hours, corrective action to correct the cause of the alarm will be initiated.
    d. Corrective action must be completed within 10 days.

3. Records

    a. Hard copies of particulate monitor preventative maintenance will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.

E. Calsiner Dust Collector Run Requirements

1. Dust collectors associated with calsiners must be turned on and remain running to process sand.

    a. 43111 (Shell)-71102
    b. 33226 (No-Bake)-71108

2. If any of the dust collectors fail to run while their respective calsiner is in process:

    a. An audio/visual alarm on the calsiner's operator screen will activate. At the alarm is a sign instructs the melt foreman to immediately notify the maintenance supervisor.
    b. Within one hour of the alarm, corrective action for determining the cause of the alarm will be initiated.

(If alarm is not addressed within one hour, dust collector motor will automatically shut down)

    c. Within 24 hours, corrective action to correct the cause of the alarm will be initiated
    d. Corrective action must be completed within 10 days.

3. Records

    a. Hard copies of particulate monitor preventative maintenance will be kept on file in the Building/Grounds Office for not less than 2 years. In addition they will be scanned or entered not more than yearly onto a network drive where they will be kept for not less than 5 years.

REFERENCE DOCUMENTS
Dust Collector Daily Inspection (FN3-018) Weekly Bag Count (FN3-013) Dust Collector Inspection (AD4-066)

REVISION HISTORY

REV LEV	DESCRIPTION OF CHANGE	AUTHOR	DATE
1	Initial Release	M. Peterson	7/14/2015
2	Changed for clarification	J. Stinson	5/19/2016
2	Annual Review, No changes required	J. Stinson	12/30/16
3	Updated for accuracy	J. Stinson	01/25/17
4	Updated daily inpsection	J. Stinson	02/24/17
4	Annual Review	J. Stinson	03/22/17
5	Removed calibration section from C.2	J. Stinson	03/29/17
6	Added new dust collector 71125	J. Stinson	04/25/17
7	Added sections “D” and “E”	J. Stinson	05/02/18
7	Annual Review	J. Stinson	12/20/18
8	Updated for changes found during audit	J. Stinson	8/12/21
8	Annual Review	J. Stinson	11/18/2021

FLOOR LEVEL STANDARD OPERATING PROCEDURE
HURON CASTING, INC.
7050 Hartley Street Pigeon, Michigan 48755

EFFECTIVE: 12/22/21	REVISION: E	DOCUMENT: SOP MAINT.400
APPROVED BY: EHS DIRECTOR/QUALITY MANAGER		
REVIEWED BY: HCCS QUALITY SYSTEMS DEPARTMENT		

SUBJECT: DUST COLLECTOR PREVENTATIVE MAINTENANCE & MONITORING

PROCEDURE:

A. Daily Inspections of All Dust Collector Bag-houses

1. Designated employee(s) will, on a daily basis:

   a. read and record the pressure reading on all dust collector bag-houses
   b. observe if there are any visible emissions from any of the stacks
   c. observe the red indicating light for the broken bag detector's alarm

2. Corrective Action Plan

   a. If there are any visible emissions from the stack, notify the Maintenance or Electrical Supervisor who will assess severity. If visible emissions exceed six minutes, dust collection system will be shut down within 2 hours for inspection and repair.
   b. If broken bag detector light is red, notify the Maintenance or Electrical Supervisor and shut down within 2 hours for inspection. An action plan will be initiated within 24 hours.

3. Records
   a. Records will be kept for five years and are on file in electrical office and/or the spectrometer room.

4. Preventive Maintenance
   a. Bag Inspections. *(Refer to specific Dust Collector Bag and Inspection PM)*

B. Broken Bag Detectors *(All dust collector bag-houses have broken bag detectors)*

1. *(Red light indicators will now be "latched"; that is, if activated the red light indicator will remain on until corrective action is taken.)*

2. Corrective Action Plan
   a. Within 2 hours of receipt of alarm, observations for visible emissions will be performed. If visible emissions are present, an action plan will be initiated, based on the assessed severity.
   b. Corrective action will be completed within 10 days.

3. Preventive Maintenance:
   a. Every 90 days the broken bag detectors will be calibrated and inspected per manufacturer's recommendations. *(FOB test)*
      *Instructions can be found in the user manual. The P.M. also states calibration instructions.

4. Records (FMAINT.02)
   a. Records of reactions to alarms will be kept for five years and are on file in the spectrometer room and/or electronically filed.
   b. Records of the broken bag detector preventative maintenance/inspection are electronically filed.

FORMS OR APPLICABLE DOCUMENTS:

1.) P.M. INSTRUCTIONS / NOTES
2.) ROP DAILY MONITORING SHEET (FMAINT.02)

REVISION HISTORY

Rev	Description of Change	Effective Date
A	Initial release	07/28/15
B	Changed “Maintenance Supervisor” to “who” in A 2 a, revised B 2 a to say that action plans will be based on severity, & changed B 4 a to say that records are stored in the spectrometer room or electronically.	05/17/16
C	Performed annual review- added note to A #3a on instructions and removed note from C#1b.	04/25/17
D	Added until corrective action is taken to B #1, changed to 90 days in B #3, & removed Sec. C.	09/21/17
D	Performed Annual Review-No changes made	05/8/19
D	Performed Annual Review – No changes made to process, updated header, made grammatical changes throughout.	05/28/20
E	Performed Annual Review—made changes to timelines for corrective actions.	12/13/21

FLOOR LEVEL STANDARD OPERATING PROCEDURE
HURON CASTING, INC.
7050 Hartley Street Pigeon, Michigan 48755

EFFECTIVE: 12/22/21	REVISION: B	DOCUMENT: SOP MAINT.500
APPROVED BY: EHS DIRECTOR/ QUALITY MANAGER		
REVIEWED BY: HCCS QUALITY SYSTEMS DEPARTMENT		

SUBJECT: MALFUNCTION AND ABATEMENT PLAN FOR DUST COLLECTORS, MELT DECKS, AND COOLING ROOMS

PROCEDURE:

A. DUST COLLECTORS (Bag-houses)

a.) Preventive Maintenance Program (All Dust Collectors)

1. Key Personnel: Maintenance Supervisor and Electrical Supervisor
2. All bag-houses are inspected: refer to SOP MAINT.400 Dust Collector Maintenance and Monitoring and WI MAINT.01
3. Inspection process: Refer to SOP MAINT.400 and specific bag-houses Preventive Maintenance Schedule.
4. Frequency of Inspection: refer to SOP MAINT.400
5. Access to Preventive Maintenance Program: Maintenance and Electrical Supervisors
6. Preventive Maintenance Program is found digitally on the internal data base server
7. Quality Control over Maintenance Program is provided by internal and external audits to ISO:9001
8. Bag-house spread sheet is found digitally on the internal database server. Includes: asset number, bag-house number, static pressure reading, associated emission unit number, cfm, stack number, stack diameter, stack height, manufacturer, number of bags, bag diameter, bag length, HCI Inventory number, bag cloth square footage, air to cloth ratio, blower, fan amps, motor Hp, approximate discharge degree temperature, and spare part requirements

b.) Operation and Monitoring (All bag-houses)

1. All bag-houses have broken bag detectors
2. Broken bag detectors and pressure differential are monitored daily. Refer to SOP MAINT.400
3. Broken bag detector alarms are “latched” red lights at bag-houses. Refer to SOP MAINT.400
4. Electrical or Maintenance supervisor is responsible for reaction to alarm and corrective action. Refer to SOP MAINT.400
5. Records are kept five years. Refer to SOP MAINT.400.
6. SOP MAINT.400 audited internally and externally to ISO 9001.

c.) Corrective Procedures

1. Refer to SOP MAINT.400

B. MELT DECKS AND ASSOCIATED COOLING ROOMS

FG-POUR-Emission Units EUPOURINGA (BH-790) and EUPOURINGB (BH-553/554)
FG-MOLDLINE EU-03A A-LINE COOLING ROM (BH-789; EU-3B B-LINE COOLING ROOM 9BH-792).
EUPOURINGA & EUPOURINGB capable of charging and pouring 8 tons per hour. Typically pour at a rate of 3 shifts per day at six days per week. Bag-houses associated with EUPOURINGA & EUPOURINGB are part of the hood capture systems for each emission unit.

Refer to Dust Collector (Bag-houses) above for PM, O&M, and CA procedures for BH-790, BH 553,554, BH-789, BH-790

Refer to SOP MELT.400 for when Malfunction Abatement & Corrective Action procedures are instigated.

Malfunction Abatement & Corrective Action

Melt personnel will notify Maintenance or Electrical Supervisor that dust collector is not running (refer to SOP MELT.400).
The maintenance and/or the electrical department will respond within 2 hours.
Within 2 hours of receipt of the alarm the problem will be assessed.
Corrective Action will be completed no later that 10 days after receipt of the alarm.

C. CALCINER

EU-06 (BH-787) & EU-07 (BH-484 & 1001)

Refer to Dust Collector (Bag-houses) above for PM, O&M, and CA procedures for BH-787, BH-484, BH-1001

Refer to WI.499 & WI SC.02 for when Malfunction Abatement & Corrective Actions procedures are instigated.

FORMS AND APPLICABLE DOCUMENTS:

1.) Dust Collector Preventative Maintenance and Monitoring SOP (SOP MAINT.400)
2.) Bag House Systems Operation and Maintenance Work Instruction (WI MAINT.01)
3.) Melting General SOP (SOP MELT.400)
4.) 499 Calciner Start Up and Shut Down (WI.499)
5.) 294 Coater #1 & #2 Work Instruction (WI SC.02)

REVISION HISTORY		
Rev	**Description of Change**	**Effective Date**
A	Initial release	4/27/18
A	Performed Annual Review-No changes made	5/8/19
A	Performed Annual Review – No changes made to process, updated header, added “Forms and Applicable Documents” to last page to reflect forms already called out in document body.	5/28/20
B	Performed Annual Review—revised response timeframes	12/22/21