STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

August 13, 2019

UPS NEXT DAY DELIVERY

Mr. Donald Glover, President
Mueller Brass Company
2199 Lapeer Avenue
Port Huron, Michigan 48060

Dear Mr. Glover:

Enclosed is the final signed copy of the State of Michigan, Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), Stipulation for Entry of Final Order by Consent (Consent Order) AQD No. 2019-17 for Mueller Brass Company.

The effective date of this Consent Order is August 12, 2019. Please refer to paragraph 13 for payment information. Payment is due on or before September 12, 2019.
To insure proper credit, all payments made pursuant to this Consent Order must include the Payment Identification No. AQD40220.

Thank you for your cooperation. If you have any questions, please feel free to contact me.

Sincerely,

Jeff Rathbun
Enforcement Unit
Air Quality Division
Rathbunj1@michigan.gov

Enclosure

cc/enc: Ms. Sarah Marshall, U.S. Environmental Protection Agency, Region 5
Mr. Neil Gordon, Michigan Department of Attorney General
Ms. Heidi Hollenbach, EGLE
Mr. Christopher Ethridge, EGLE
Ms. Jenine Camilleri, EGLE

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
OFFICE OF THE DIRECTOR

In the matter of administrative proceedings against **MUELLER BRASS COMPANY**, a corporation, organized under the laws of the State of Michigan and doing business at 2199 Lapeer Avenue in the City of Port Huron, County of St. Clair, State of Michigan

AQD No. 2019-17

SRN: A6262

_____/

STIPULATION FOR ENTRY OF FINAL ORDER
BY CONSENT

This proceeding resulted from allegations by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) against Mueller Brass Company (Company), a corporation organized under the laws of the State of Michigan and doing business at 2199 Lapeer Avenue, City of Port Huron, County of St. Clair, State of Michigan, with State Registration Number (SRN) A6262 (Facility). EGLE alleges that the Company is in violation of Permit to Install (PTI) Number 180-00C, Mich Admin Code, R 336.1901 (Rule 901), Mich Admin Code, R 336.1910 (Rule 910), and Mich Admin Code, R 336.1911 (Rule 911). Specifically, EGLE alleges that the Company has failed to maintain, operate and monitor Baghouse Systems B and C in a satisfactory manner as required by Special Conditions IV.1, IV.2 and IV.3 of FGSYSTEMB and FGSYSTEMC and Special Condition III.1 of FGFACILITY as specified in PTI Number 180-00C, as cited herein and in the Violation Notices dated April 17, 2018 and May 15, 2018. Additionally, EGLE alleges that the Company has emitted air contaminants from its facility that have created an unreasonable interference with the comfortable enjoyment of life and property, as cited herein and in the Violation Notice dated June 29, 2018. The Company and EGLE stipulate to the termination of this proceeding by entry of this Stipulation for Entry of a Final Order by Consent (Consent Order).

The Company and EGLE stipulate as follows:

1. The Natural Resources and Environmental Protection Act (NREPA) MCL 324.101 *et seq.,* is an act that controls pollution to protect the environment and natural resources in this State.

2. Article II, Pollution Control, Part 55 of the NREPA (Part 55), MCL 324.5501 *et seq.,* provides for air pollution control regulations in this State.

3. Executive Order 2019-06 renamed the Michigan Department of Environmental Quality as EGLE, and EGLE has all statutory authority, powers, duties, functions and responsibilities to administer and enforce all provisions of Part 55.

4. The EGLE Director has delegated authority to the Director of the AQD (AQD Director) to enter into this Consent Order.

5. The termination of this matter by a Consent Order pursuant to Section 5528 of Part 55, MCL 324.5528, is proper and acceptable.

6. The Company and EGLE agree that the signing of this Consent Order is for settlement purposes only and does not constitute an admission by the Company that the law has been violated.

7. This Consent Order becomes effective on the date of execution (effective date of this Consent Order) by the AQD Director.

8. The Company shall achieve compliance with the aforementioned regulations in accordance with the requirements contained in this Consent Order.

COMPLIANCE PROGRAM AND IMPLEMENTATION SCHEDULE

9.A. Permit

1. On and after the effective date of this Consent Order, the Company shall comply with the Special Conditions for FGSYSTEMB, FGSYSTEMC, FGSYSTEME and Special Conditions III.1, III.2, and VI.5 for FGFACILITY as specified in PTI Number 180-00D and any subsequent permit revisions. PTI Number 180-00D is attached hereto as Exhibit A of this Consent Order, incorporated by reference into this Consent Order and shall be enforceable in accordance with the provisions of this Consent Order.

9.B. Rules

1. On and after the effective date of this Consent Order, the Company shall comply with Rule 901.

2. On and after the effective date of this Consent Order, the Company shall comply with Rule 910.

9.C. Malfunction Abatement Plan

1. In accordance with Special Condition III.1 of FGFACILITY, as specified in PTI Number 180-00D and any subsequent permit revisions, the Company shall submit a revised Preventative Maintenance/Malfunction Abatement Plan (PM/MAP) to the AQD Southeast Michigan District Supervisor for review and approval. The PM/MAP shall include a provision requiring the Company to notify the AQD Southeast Michigan District Supervisor prior to discontinuing the use of Baghouse D. Upon approval, the Company shall maintain, operate and monitor each control device in accordance with the AQD-approved PM/MAP. The PM/MAP and any subsequent revision to the PM/MAP shall be attached hereto as Exhibit B of this Consent Order and made an enforceable part of this Consent Order.

9.D. Testing

1. No later than 180 Days after the effective date of this Consent Order, the Company shall verify the PM, PM_{10}, $PM_{2.5}$ and lead (including lead compounds) emission rates from Baghouse System D, by testing at the owner's expense, in accordance with EGLE requirements. The hourly emission rates shall be determined by the average of three acceptable test runs per the applicable method requirements. Testing shall be performed using an approved EPA Method listed in the Test Method Table below.

Test Method Table

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM_{10} / $PM_{2.5}$	40 CFR Part 51, Appendix M or 40 CFR Part 60, Appendix A, Part 10 of the Michigan Air Pollution Control Rules
Pb	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No later than 30 days prior to testing, the Company shall submit a complete test plan to the AQD Technical Programs Unit and District Office for review and approval. 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 Company 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.

9.E. Operating Requirements

1. To minimize discharge of uncontrolled dust or particulate emissions directly into the atmosphere, the Company shall minimize door openings to the extent practicable when bringing material in and out from the melting furnaces area or when in justifiable use.

GENERAL PROVISIONS

10.A The Company shall perform the requirements of this Consent Order within the time limits established herein, unless performance is prevented or delayed by events that constitute a "Force Majeure." Any delay in the performance attributable to a "Force Majeure" shall not be deemed a violation of the Company's obligations under this Consent Order in accordance with this section.

10.B For the purpose of this Consent Order, "Force Majeure" means an occurrence or nonoccurrence arising from causes not foreseeable, beyond the control of, and without the fault of the Company, such as: an Act of God, untimely review of permit applications or submissions by EGLE or other applicable authority, and acts or omissions of third parties that could not have been avoided or overcome by the Company's diligence and that delay the performance of an obligation under this Consent Order. "Force Majeure" does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of the Company's actions or omissions.

10.C The Company shall notify EGLE, by telephone, within 48 hours of discovering any event that may cause a delay in its compliance with any provision of this Consent Order. Verbal notice shall be followed by written notice within ten calendar days and shall describe, in detail, the anticipated length of delay, the precise cause or causes of delay, the measures taken by the Company to prevent or minimize the delay, and the timetable by which those measures shall be implemented. The Company shall adopt all reasonable measures to avoid or minimize any such delay.

10.D Failure of the Company to comply with the notice requirements and time provisions under paragraph 10.C shall render paragraph 10.A void and of no force and effect as to the particular incident involved. EGLE may, at its sole discretion and in appropriate circumstances, waive in writing the notice requirements of paragraph 10.C, above.

10.E If the parties agree that the delay or anticipated delay was beyond the control of the Company, this may be so stipulated, and the parties to this Consent Order may agree upon an appropriate modification of this Consent Order. However, EGLE is the final decision-maker on whether or not the matter at issue constitutes a force majeure. The burden of proving that any delay was beyond the reasonable control of the Company, and that all the requirements of paragraph 10 have been met by the Company, rests with the Company.

10.F An extension of one compliance date based upon a particular incident does not necessarily mean that the Company qualifies for an extension of a subsequent compliance date without providing proof regarding each incremental step or other requirement for which an extension is sought.

11. This Consent Order in no way affects the Company's responsibility to comply with any other applicable state, federal, or local laws or regulations, including without limitation, any amendments to the federal Clean Air Act, 42 USC 7401 *et seq.*, Part 55, or their rules and regulations, or to the State Implementation Plan.

12. This Consent Order constitutes a civil settlement and satisfaction as to the resolution of the violations specifically addressed herein; however, it does not resolve any criminal action that may result from these same violations.

13. Within thirty (30) days after the effective date of this Consent Order, the Company shall pay to the General Fund of the State of Michigan, in the form of a check made payable to the "State of Michigan" and mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157, a settlement amount of $60,260.00, which includes AQD costs for investigation and enforcement. This total settlement amount shall be paid within thirty (30) days after the effective date of this Consent Order. To ensure proper credit, all payments made pursuant to this Consent Order shall include the "Payment Identification Number AQD40220" on the front of the check

and/or in the cover letter with the payment. This settlement amount is in addition to any fees, taxes, or other fines that may be imposed on the Company by law.

14. On and after the effective date of this Consent Order, if the Company fails to comply with paragraph 9.B.2 of this Consent Order, the Company is subject to a stipulated fine of up to $5,000.00 per violation per day. On and after the effective date of this Consent Order, if the Company fails to comply with paragraph 9.A.1, 9.B.1, or 9.D.1 of this Consent Order, the Company is subject to a stipulated fine of up to $2,500 per violation per day. On and after the effective date of this Consent Order, if the Company fails to comply with 9.E.1 or any other provision of this Consent Order, the Company is subject to a stipulated fine of up to $500.00 per violation. The amount of the stipulated fines imposed pursuant to this paragraph shall be within the discretion of EGLE. Stipulated fines submitted under this Consent Order shall be made by check, payable to the State of Michigan within thirty (30) days after written demand and shall be mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157. To ensure proper credit, all payments shall include the "Payment Identification Number AQD40220-S" on the front of the check and/or in the cover letter with the payment. Payment of stipulated fines shall not alter or modify in any way the Company's obligation to comply with the terms and conditions of this Consent Order.

15. The AQD, at its discretion, may seek stipulated fines or statutory fines for any violation of this Consent Order which is also a violation of any provision of applicable federal and state law, rule, regulation, permit, or EGLE administrative order. However, the AQD is precluded from seeking both a stipulated fine under this Consent Order and a statutory fine for the same violation.

16. To ensure timely payment of the settlement amount assessed in paragraph 13 and any stipulated fines assessed pursuant to paragraph 14 of this Consent Order, the Company shall pay an interest penalty to the State of Michigan each time it fails to make a complete or timely payment under this Consent Order. The interest penalty shall be determined at a rate of twelve percent (12%) per year compounded annually, using the full increment of amount due as principal, calculated from the due date specified in this Consent Order until the date that delinquent payment is finally paid in full. Payment of an interest penalty by the Company shall be made to the State

of Michigan in accordance with paragraph 13 of this Consent Order. Interest payments shall be applied first towards the most overdue amount or outstanding interest penalty owed by the Company before any remaining balance is applied to subsequent payment amount or interest penalty.

17. The Company agrees not to contest the legal basis for the settlement amount assessed pursuant to paragraph 13. The Company also agrees not to contest the legal basis for any stipulated fines assessed pursuant to paragraph 14 of this Consent Order but reserves the right to dispute in a court of competent jurisdiction the factual basis upon which a demand by EGLE of stipulated fines is made. In addition, the Company agrees that said fines have not been assessed by EGLE pursuant to Section 5529 of Part 55, MCL 324.5529, and therefore are not reviewable under Section 5529 of Part 55.

18. This compliance program is not a variance subject to the 12-month limitation specified in Section 5538 of Part 55, MCL 324.5538.

19. This Consent Order shall remain in full force and effect for a period of at least five (5) years. Thereafter, this Consent Order shall terminate only upon written notice of termination issued by the AQD Director. Prior to issuance of a written notice of termination, the Company shall submit a request, to the AQD Director at the Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909-7760, consisting of a written certification that the Company has fully complied with all the requirements of this Consent Order and has made all payments including all stipulated fines required by this Consent Order. Specifically, this certification shall include: (i) the date of compliance with each provision of the compliance program and the date any payments or stipulated fines were paid; (ii) a statement that all required information has been reported to the AQD Southeast Michigan District Supervisor; (iii) confirmation that all records required to be maintained pursuant to this Consent Order are being maintained at the facility; and, (iv) such information as may be requested by the AQD Director.

20. In the event Mueller Brass Company sells or transfers the Facility, it shall advise any purchaser or transferee of the existence of this Consent Order in connection with such sale or transfer. Within thirty (30) calendar days, the Company shall also notify the AQD Southeast Michigan District Supervisor, in writing, of such sale or transfer, the identity and address of any

purchaser or transferee, and confirm the fact that notice of this Consent Order has been given to the purchaser and/or transferee. As a condition of the sale, Mueller Brass Company must obtain the consent of the purchaser and/or transferee, in writing, to assume all of the obligations of this Consent Order. A copy of that agreement shall be forwarded to the AQD Southeast Michigan District Supervisor within thirty (30) days after assuming the obligations of this Consent Order.

21. Prior to the effective date of this Consent Order and pursuant to the requirements of Sections 5511 and 5528(3) of Part 55, MCL 324.5511 and MCL 5528(3), the public was notified of a 30-day public comment period and was provided the opportunity for a public hearing.

22. Section 5530 of Part 55, MCL 324.5530, may serve as a source of authority but not a limitation under which this Consent Order may be enforced. Further, Part 17 of the NREPA, MCL 324.1701 *et seq.*, and all other applicable laws and any other legal basis or applicable statute may be used to enforce this Consent Order.

23. The Company hereby stipulates that entry of this Consent Order is a result of an action by EGLE to resolve alleged violations of its facility located at 2199 Lapeer Avenue, County of St. Clair, State of Michigan. The Company further stipulates that it will take all lawful actions necessary to fully comply with this Consent Order, even if the Company files for bankruptcy in the future. The Company will not seek discharge of the settlement amount and any stipulated fines imposed hereunder in any future bankruptcy proceedings, and the Company will take necessary steps to ensure that the settlement amount and any future stipulated fines are not discharged. The Company, during and after any future bankruptcy proceedings, will ensure that the settlement amount and any future stipulated fines remain an obligation to be paid in full by the Company to the extent allowed by applicable bankruptcy law.

The undersigned certifies that he/she is fully authorized by the Company to enter into this Consent Order and to execute and legally bind the Company to it.

MUELLER BRASS COMPANY

Don Glover, Director of Mueller Brass Co.
Print Name and Title

Signature Date: 7/29/2019

The above signatory subscribed and sworn to before me this 29th day of July, 2019

Notary Public Signature

AYA R GOTAUTAS
Notary Public Printed Name

My Commission Expires: 09/2021

Approved as to Content:

Mary Ann Dolehanty, Director
AIR QUALITY DIVISION
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES,
AND ENERGY

Dated: 8/12/19

Approved as to Form:

Neil Gordon, Section Head
ENVIRONMENTAL REGULATION SECTION
ENVIRONMENT, NATURAL RESOURCES,
AND AGRICULTURE DIVISION
DEPARTMENT OF ATTORNEY GENERAL

Dated: August 7, 2019

FINAL ORDER

The Director of the Air Quality Division having had opportunity to review this Consent Order and having been delegated authority to enter into Consent Orders by the Director of the Michigan Department of Environment, Great Lakes, and Energy pursuant to the provisions of Part 55 of the NREPA and otherwise being fully advised on the premises,

HAS HEREBY ORDERED that this Consent Order is approved and shall be entered in the record of EGLE as a Final Order.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Mary Ann Dolehanty

Mary Ann Dolehanty, Director
Air Quality Division

Effective Date: 8/12/19

Exhibit A

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

January 10, 2019

PERMIT TO INSTALL
180-00D

ISSUED TO
Mueller Industries, Inc.

LOCATED AT
2199 Lapeer Avenue
Port Huron, Michigan

IN THE COUNTY OF
St. Clair

STATE REGISTRATION NUMBER
A6262

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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: **September 11, 2018**	
DATE PERMIT TO INSTALL APPROVED: **January 10, 2019**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Common Abbreviations / Acronyms

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

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

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 Environmental Quality, 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 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 R 336.1219 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(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 R 336.1301, 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 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

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 (Process Equipment & Control Devices)	Flexible Group ID
EUMELTFURNACE1	#1 Electric Induction Melting Furnace	FGSYSTEMB
EUMELTFURNACE2	#2 Electric Induction Melting Furnace	
EUHOLDFURNACE1	#1 Electric Induction Holding Furnace	
EUHOLDFURNACE2	#2 Electric Induction Holding Furnace	
EUCHANFURNACE1	Channel Furnace (33 tons per hour electric induction furnace)	FGSYSTEME
EUCHIPFURNACE2	Chip Melter (33 tons per hour electric induction furnace)	
EUCASTFURNACE3	Casting Furnace (33 tons per hour electric induction furnace)	
EUASHDUMPER	Ash Dumper	
EUMELTFURNACE3S	#3 South Melting Furnace (electric induction furnace)	FGSYSTEMC
EUMELTFURNACE3N	#3 North Melting Furnace (electric induction furnace)	
EUMELTFURNACE3W	#3 West Melting Furnace (electric induction furnace)	
EUHOLDFURNACE3	#3 Holding Furnace (electric induction furnace)	
EUBILLETHEATER1	10.8 MMBtu/hr Natural Gas-Fired Billet Heater #1,	FGBILLETHEATERS
EUBILLETHEATER2	10.8 MMBtu/hr Natural Gas-Fired Billet Heater #2	
EUBILLETHEATER3	10.8 MMBtu/hr Natural Gas-Fired Billet Heater #3	
EUSLUDGEDRYER	Natural Gas-Fired Dryer to dry wastewater filter cake	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.		

The following conditions apply to:
EUSLUDGEDRYER

DESCRIPTION: Natural Gas-Fired Dryer to dry wastewater filter cake

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Wet scrubber

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	1.0 pph	Test Protocol	EUSLUDGEDRYER	GC 13	R 336.1205 (3)
2. Visible Emissions	0% opacity, except for uncombined water vapor	Test Protocol	EUSLUDGEDRYER	GC 13	R 336.1301 (c)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUSLUDGEDRYER unless the wet scrubber installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1910)**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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. SV00007	12	42	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

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
FGSYSTEMB	Melting Line B consisting of Casters 1, 2 and 5	EUMELTFURNACE1, EUMELTFURNACE2, EUHOLDFURNACE1, EUHOLDFURNACE2
FGSYSTEME	Melting Line E consisting of Caster 4	EUASHDUMPER, EUCHIPFURNACE2, EUCHANFURNACE1, EUCASTFURNACE3
FGSYSTEMC	Melting Line C consisting of Caster 3	EUMELTFURNACE3S, EUMELTFURNACE3N, EUMELTFURNACE3W, EUHOLDFURNACE3
FGBILLETHEATERS	Billet Heaters	EUBILLETHEATER1, EUBILLETHEATER2, EUBILLETHEATER3
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to:
FGSYSTEMB

DESCRIPTION: Melting Line B consisting of Casters 1, 2 and 5

Emission Units: EUMELTFURNACE1, EUMELTFURNACE2, EUHOLDFURNACE1, EUHOLDFURNACE2

POLLUTION CONTROL EQUIPMENT: Baghouse System B with an air flow of 75,000 ACFM

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	1.0 pph	hourly	FGSYSTEMB	SC V.1	R 336.1205(3) R 336.1331(c)
2. PM10	1.0 pph	hourly	FGSYSTEMB	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
3. PM2.5	1.0 pph	hourly	FGSYSTEMB	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
4. Lead (including Lead Compounds)	0.035 pph	Hourly	FGSYSTEMB	SC V.1	R 336.1205(3)
5. Lead (including Lead Compounds)	25.8 lbs/month	3-month rolling average as determined at the end of each calendar month	FGSYSTEMB	SC VI.7	R 336.1205(3) 40 CFR 52.21(d)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGSYSTEMB unless Baghouse System B, the melting/holding furnaces hood/emissions capture systems and the associated ductwork system to the baghouse are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(3), R 336.1331, R 336.1910)**

2. The permittee shall equip and maintain each compartment (or module) of Baghouse System B of FGSYSTEMB with a pressure drop indicator. **(R 336.1910)**

3. The permittee shall not operate FGSYSTEMB unless a pressure drop between 2.0 and 12.0 inches W.G. is maintained across each operating compartment (or module) of Baghouse System B. **(R 336.1910)**

4. The permittee shall install, operate and maintain a bag leak detection system for Baghouse System B of FGSYSTEMB, upon restart of FGSYSTEMB. **(R 336.1910)**

5. Within 180 days of restart of FGSYSTEMB, the permittee shall provide a description of the appropriate operating conditions for the furnace and baghouse system to ensure satisfactory operation as outlined in the PM/MAP. This condition is satisfied if the information listed herein is submitted as part of the PM/MAP required by FGFACILITY SC III.1. **(R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after restart of FGSYSTEMB, the permittee shall verify PM, PM10, PM2.5 and lead (including lead compounds) emission rates from FGSYSTEMB by testing at owner's expense, in accordance with Department requirements. The hourly emission rates shall be determined by the average of three acceptable test runs per the applicable method requirements. The permittee must complete the testing once every five years, thereafter, unless an alternative testing schedule is approved by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in Test Method Table.

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 or 40 CFR Part 60, Appendix A, Part 10 of the Michigan Air Pollution Control Rules
Pb	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. 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, 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. **(R 336.1205, R 336.1910, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. During the emission limit verification test for FGSYSTEMB and within 6 months thereafter, as specified in SC V.1, the permittee shall verify the direction of air flow at each hood, using a smoke test (i.e., smoke bomb, smoke tube) as approved by the AQD District Supervisor. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. Verification of air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 60 days following the date of the test. After two consecutive tests that satisfy a demonstration that the direction of air flow at each hood is flowing into the exhaust ductwork, subsequent testing shall be completed once per calendar year. After 3 years of satisfactory tests demonstrating that the direction of the airflow at each hood is flowing into the exhaust ductwork, the permittee may submit a request for an alternate time frame for testing frequency to the AQD District Supervisor for review and approval. **(R 336.1205, R 336.1301, R 336.1910, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a satisfactory manner, the pressure drop each compartment (or module) of Baghouse System B for FGSYSTEMB on a daily basis, at least once per day while melting metal at FGSYSTEMB. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor the Baghouse System B to verify it is operating properly, by taking non-certified visible emission readings for the ductwork of Baghouse System B and the building housing FGSYSTEMB a minimum of once per calendar operating day during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

3. If the bag leak detection alarm is triggered, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

4. The permittee shall monitor and record, in a satisfactory manner, the amount of metal melted (solids and turnings) for FGSYSTEMB on a daily and monthly time period. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1225, 40 CFR 52.21(c) & (d))**

5. The permittee shall keep records of the hours of operation of FGSYSTEMB. **(R 336.1205)**

6. Permittee shall keep records of daily visible emissions observations, control equipment inspections and maintenance conducted, malfunctions, corrective actions and repairs. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1910)**

7. The permittee shall calculate and maintain in a satisfactory manner monthly and 3-month rolling time period emission calculation records of Lead (including lead compounds). If stack test results for FGSYSTEMB exist for lead, the permittee may use those stack test results to estimate lead emissions subject to the approval of the AQD. In the event that stack test results do not exist for a lead, the permittee shall use the applicable emission factor listed in the Emission Limit Table to estimate the emissions of lead from FGSYSTEMB. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification 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. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGSYSTEMB. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

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. SV-BHBM1-01[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
2. SV-BHBM1-02[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
3. SV-BHBM2-01[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
4. SV-BHBM2-02[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
5. SV-BHBM3-01[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
6. SV-BHBM3-02[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
7. SV-BHBM4-01[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
8. SV-BHBM4-02[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
9. SV-BHBM5-01[a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
10. SV-BHBM5-02 [a]	21	75	R 336.1225 40 CFR 52.21(c) & (d)
[a] SC IX.1 contains the date of compliance for the stack height			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the minimum height above ground from SV-BHBM1-01, SV-BHBM1-02, SV-BHBM2-01, SV-BHBM2-02, SV-BHBM3-01, SV-BHBM3-02, SV-BHBM4-01, SV-BHBM4-02, SV-BHBM5-01, SV-BHBM5-02 upon restart of FGSYSTEMB. **(R 336.1225, 40 CFR 52.21(c) & (d))**

The following conditions apply to:
FGSYSTEME

DESCRIPTION: Melting Line E consisting of Caster 4

Emission Units: EUASHDUMPER, EUCHIPFURNACE2, EUCHANFURNACE1, and EUCASTFURNACE3

POLLUTION CONTROL EQUIPMENT: New cyclone followed by a Negative Pressure Baghouse System E with an airflow of 75,000 ACFM

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	1.0 pph	Hourly	FGSYSTEME	SC V.1	R 336.1205(3) R 336.1331(c)
2. PM10	1.0 pph	Hourly	FGSYSTEME	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
3. PM2.5	1.0 pph	Hourly	FGSYSTEME	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
4. Lead (including Lead Compounds)	0.035 pph	Hourly	FGSYSTEME	SC V.1	R 336.1205(3)
5. Lead (including Lead Compounds)	25.8 lbs/month	3-month rolling average as determined at the end of each calendar month	FGSYSTEME	SC VI.7	R 336.1205(3) 40 CFR 52.21(d)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGSYSTEME unless Baghouse System E, the melting/holding furnaces hood/emissions capture systems and the associated ductwork system to the baghouse are installed, maintained, and operated in a satisfactory manner. **(R 336.1205 (3), R 336.1331, R 336.1910)**

2. The permittee shall equip and maintain each compartment (or module) of Baghouse System E of FGSYSTEME with pressure drop indicator. **(R 336.1910)**

3. The permittee shall not operate FGSYSTEME unless a pressure drop between 2.0 and 12.0 inches W.G. is maintained across each operating compartment (or module) of Baghouse System E. **(R 336.910)**

4. The permittee shall install, operate and maintain a bag leak detection system for Baghouse System E of FGSYSTEME. **(R 336.1910)**

5. Within 180 days of commencing operation of FGSYSTEME routed to Baghouse System E, the permittee shall provide a description of the appropriate operating conditions for the furnace and baghouse system to ensure satisfactory operation as outlined in the PM/MAP. This condition is satisfied if the information listed herein is submitted as part of the PM/MAP required by FGFACILITY SC III.1. **(R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after startup of FGSYSTEME, the permittee shall verify PM, PM10, PM2.5 and lead (including lead compounds) emission rates from FGSYSTEME by testing at owner's expense, in accordance with Department requirements. The hourly emission rates shall be determined by the average of three acceptable test runs per the applicable method requirements. The permittee must complete the testing once every five years, thereafter, unless an alternative testing schedule is approved by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in Test Method Table.

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 or 40 CFR Part 60, Appendix A, Part 10 of the Michigan Air Pollution Control Rules
Pb	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. 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, 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. **(R 336.1205, R 336.1910, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. During the emission limit verification test for FGSYSTEME and within 6 months thereafter, as specified in SC V.1, the permittee shall verify the direction of air flow at each hood, using a smoke test (i.e., smoke bomb, smoke tube) as approved by the AQD District Supervisor.. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. Verification of air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 60 days following the date of the test. After two consecutive tests that satisfy a demonstration that the direction of air flow at each hood is flowing into the exhaust ductwork, subsequent testing shall be completed once per calendar year. After 3 years of satisfactory tests demonstrating that the direction of the airflow at each hood is flowing into the exhaust ductwork, the permittee may submit a request for a change After 3 years, the permittee may submit a request for an alternate time frame for testing frequency to the AQD District Supervisor for review and approval. **(R 336.1205, R 336.1301, R 336.1910, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a satisfactory manner, the pressure drop for each compartment (or module) of Baghouse System E for FGSYSTEME on a daily basis, at least once per day while melting metal at FGSYSTEME. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor the Baghouse System E to verify it is operating properly, by taking non-certified visible emission readings for the ductwork of Baghouse System E and the building housing FGSYSTEME a minimum of once per calendar operating day during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

3. If the bag leak detection alarm is triggered, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

4. The permittee shall monitor and record, in a satisfactory manner, the amount of metal melted (solids and turnings) for FGSYSTEME on a daily and monthly time period. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1225, 40 CFR 52.21(c) & (d))**

5. The permittee shall keep records of the hours of operation of FGSYSTEME. **(R 336.1205)**

6. Permittee shall keep records of daily visible emissions observations, control equipment inspections and maintenance conducted, malfunctions, corrective actions and repairs. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1910)**

7. The permittee shall calculate and maintain in a satisfactory manner monthly and 3-month rolling time period emission calculation records of Lead (including lead compounds). If stack test results for FGSYSTEME exist for lead, the permittee may use those stack test results to estimate lead emissions subject to the approval of the AQD. In the event that stack test results do not exist for lead, the permittee shall use the applicable emission factor listed in the Emission Limit Table to estimate the emissions of lead from FGSYSTEME. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification 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. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGSYSTEME. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

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. SV-BHE[a]	66	75	R 336.1225 40 CFR 52.21(c) & (d)
[a] SC IX.1 contains the date of compliance for the stack height			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the stack parameters, including number of stacks, maximum exhaust diameter/dimensions (inches), and minimum height above ground (feet) within 90 days of issuance of this permit or other timeframe if requested by the permittee and approved by the AQD District Supervisor. **(R 336.1225, 40 CFR 52.21(c) & (d))**

The following conditions apply to:
FGSYSTEMC

DESCRIPTION: Melting Line C consisting of Caster 3

Emission Units: EUMELTFURNACE3S, EUMELTFURNACE3N, EUMELTFURNACE3W, and EUHOLDFURNACE3

POLLUTION CONTROL EQUIPMENT: Baghouse System C with an air flow of 120,000 ACFM

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	1.0 pph	Hourly	FGSYSTEMC	SC V.1	R 336.1205(3) R 336.1331(c)
2. PM10	1.0 pph	Hourly	FGSYSTEMC	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
3. PM2.5	1.0 pph	Hourly	FGSYSTEMC	SC V.1	R 336.1205(3) 40 CFR 52.21(c) & (d)
4. Lead (including Lead Compounds)	0.035pph	Hourly	FGSYSTEMC	SC V.1	R 336.1205(3)
5. Lead (including Lead Compounds)	25.8 lbs/month	3-month rolling average as determined at the end of each calendar month	FGSYSTEMC	SC VI.7	R 336.1205(3) 40 CFR 52.21(d)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGSYSTEMC unless Baghouse System C, the melting/holding furnaces hood/emissions capture systems and the associated ductwork system to the baghouse are installed, maintained, and operated in a satisfactory manner. **(R 336.1205 (3), R 336.1331, R 336.1910)**

2. The permittee shall equip and maintain each compartment (or module) of Baghouse System C of FGSYSTEMC with pressure drop indicator. **(R 336.1910)**

3. The permittee shall not operate FGSYSTEMC unless a pressure drop between 2.0 and 12.0 inches W.G. is maintained across each operating compartment (or module) of Baghouse System C. **(R 336.910)**

4. The permittee shall install, operate and maintain a bag leak detection system for Baghouse System B of FGSYSTEMC within 90 days of permit issuance. **(R 336.1910)**

5. Within 180 days of permit issuance, the permittee shall provide a description of the appropriate operating conditions for the furnace and baghouse system to ensure satisfactory operation as outlined in the PM/MAP. This condition is satisfied if the information listed herein is submitted as part of the PM/MAP required by FGFACILITY SC III.1. **(R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after startup of FGSYSTEMC, the permittee shall verify PM, PM10, PM2.5 and lead (including lead compounds) emission rates from FGSYSTEMC by testing at owner's expense, in accordance with Department requirements. The hourly emission rates shall be determined by the average of three acceptable test runs per the applicable method requirements. The permittee must complete the testing once every five years, thereafter, unless an alternative testing schedule is approved by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in Test Method Table.

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 or 40 CFR Part 60, Appendix A, Part 10 of the Michigan Air Pollution Control Rules
Pb	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. 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, 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. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. During the emission limit verification test for FGSYSTEMC and 6 months thereafter, as specified in SC V.1, the permittee shall verify the direction of air flow at each hood, using a smoke test (i.e., smoke bomb, smoke tube) as approved by the AQD District Supervisor. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. Verification of air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 60 days following the date of the test. After two consecutive tests that satisfy a demonstration that the direction of air flow at each hood is flowing into the exhaust ductwork, subsequent testing shall be completed once per calendar year. After 3 years of satisfactory tests demonstrating that the direction of the airflow at each hood is flowing into the exhaust ductwork, the permittee may submit a request for a change After 3 years, the permittee may submit a request for an alternate time frame for testing frequency to the AQD District Supervisor for review and approval. **(R 336.1205, R 336.1301, R 336.1910, 40 CFR 52.21(c) & (d)))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a satisfactory manner, the pressure drop each compartment (or module) of Baghouse System C for FGSYSTEMC on a daily basis, at least once per day while melting metal at FGSYSTEMC. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d)))**

2. The permittee shall monitor the Baghouse System C to verify it is operating properly, by taking non-certified visible emission readings for the ductwork of Baghouse System C and the building housing FGSYSTEMC a minimum of once per calendar operating day during routine operating conditions. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If any visible emissions (other than uncombined water vapor) are observed, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

3. If the bag leak detection alarm is triggered, the permittee shall inspect the baghouse and perform any required maintenance. **(R 336.1910)**

4. The permittee shall monitor and record, in a satisfactory manner, the amount of metal melted (solids and turnings) for FGSYSTEMC on a daily and monthly time period. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1225, 40 CFR 52.21(c) & (d))**

5. The permittee shall keep records of the hours of operation of FGSYSTEMC. **(R 336.1205)**

6. Permittee shall keep records of daily visible emissions observations, control equipment inspections and maintenance conducted, malfunctions, corrective actions and repairs. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1910)**

7. The permittee shall keep in a satisfactory manner monthly and 3-month rolling time period emission calculation records of Lead (including lead compounds). If stack test results for FGSYSTEMC exist for lead, the permittee may use those stack test results to estimate lead emissions subject to the approval of the AQD. In the event that stack test results do not exist for lead, the permittee shall use the applicable emission factor listed in the Emission Limit Table to estimate the emissions of lead from FGSYSTEMC. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification 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. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGSYSTEMC. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

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. SV-BHC-01 [a]	58	75	R 336.1225 40 CFR 52.21(c) & (d)
2. SV-BHC-02 [a]	58	75	R 336.1225 40 CFR 52.21(c) & (d)
[a] SC IX.1 contains the date of compliance for the stack height.			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the stack parameters, including number of stacks, maximum exhaust diameter/dimensions (inches), and minimum height above ground (feet) within 90 days of issuance of this permit or other timeframe if requested by the permittee and approved by the AQD District Supervisor. **(R 336.1225, 40 CFR 52.21(c) & (d))**

The following conditions apply to:
FGBILLETHEATERS

DESCRIPTION: Billet Heaters

Emission Units: EUBILLETHEATER1, EUBILLETHEATER2, and EUBILLETHEATER3

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

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. SV-PBH-001	32	22	R 336.1225, 40 CFR 52.21 (c) & (d)
2. SV-PBH-002	14	22	R 336.1225, 40 CFR 52.21 (c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
3. SV-PBH-003	14	22	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply Source-Wide to:
FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Individual HAP	9.0 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI. 2 & 3	R 336.1205(3)
2. Aggregate HAPs	22.0 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC VI. 2 & 3	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall submit to the AQD District Supervisor for review and approval, a preventative maintenance/malfunction abatement plan (PM/MAP) for the casting operations equipment, processes, ductwork, and emission control as described in Rule 911(2), within 90 days following permit issuance. The PM/MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of equipment and air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   b. An identification of the equipment and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
   c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emissions limits.

   If at any time the PM/MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM/MAP within 45 days after such an event occurs. The permittee shall also amend the PM/MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit 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 PM/MAP or amended PM/MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operation changes to achieve compliance with all applicable emission limits. **(R 336.1911)**

2. The permittee shall submit to the AQD District Supervisor for review and approval, a Best Management Practices Plan (BMPP) for housekeeping and prevention of fugitive particulate emissions within 45 days following permit issuance and the plan shall be implemented and maintained. The BMPP shall, at a minimum, specify the following:

a. A detailed plan for housekeeping activities, including identification of the supervisory personnel responsible for overseeing these activities, a description of the items or conditions that shall be addressed by these activities, and the frequency at which the housekeeping activities are performed.
b. A detailed plan for addressing/controlling fugitive particulate emissions, including proper cleanup and future emissions prevention in case of malfunctions/inadequate and/or failure of particulate control systems.
c. A description of the corrective procedures or operational changes that shall be taken in the event of a failure to follow the housekeeping activities/procedures causing some for fugitive particulate emissions.

If at any time the BMPP fails to address or inadequately addresses activities or corrective procedures for housekeeping and prevention of fugitive particulate emissions, the permittee shall amend the BMPP within 90 days after such an event occurs. The permittee shall also amend the BMPP within 45 days, if new equipment is installed that necessitates an update to the BMPP or upon request from the AQD District Supervisor. The permittee shall submit any amendments to the BMPP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the BMPP or amended BMPP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures and/or operational changes to achieve compliance with all applicable emission limits and permit conditions. **(R 336.1301))**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3))**

2. The permittee shall keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used in the casting process for dressing molds. These records must be copies of purchasing records, Safety Data Sheets, or other documentation that provide information on the binder or coating materials used. **(R 336.1225)**

3. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of individual and aggregate HAPs using mass balance, tested emission rates, or an alternative method as approved by the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (3))**

4. The permittee shall maintain records of the amount of fuel combusted monthly at FGFACILITY. **(R 336.1205(3))**

5. The permittee shall maintain a log of all maintenance activities conducted according to the PM / MAP and the BMPP (pursuant to SC III.1 & 2). The permittee shall keep this log on file at the facility and make it available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1911, 40 CFR 52.21 (c) & (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA