Michigan Department of Environmental Great Lakes, and Energy
Air Quality Division

State Registration Number		ROP Number
N5814	**RENEWABLE OPERATING PERMIT STAFF REPORT**	MI-ROP-N5814-2021

Asama Coldwater Manufacturing, Inc.

State Registration Number (SRN): N5814

Located at

180 Asama Parkway, Coldwater, Branch County, Michigan 49036

Permit Number: MI-ROP-N5814-2021

Staff Report Date: March 29, 2021

Amended Dates: May 17, 2021

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

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Purpose

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

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

General Information

Stationary Source Mailing Address:	Asama Coldwater Manufacturing, Inc. 180 Asama Parkway Coldwater, Michigan 49036
Source Registration Number (SRN):	N5814
North American Industry Classification System (NAICS) Code:	331511
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900100
Responsible Official:	Mark Conti, General Manager 517-279-1090
AQD Contact:	Amanda Chapel, Senior Environmental Quality Analyst 269-910-2109
Date Application Received:	June 7, 2019
Date Application Was Administratively Complete:	June 7, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	March 29, 2021
Deadline for Public Comment:	April 28, 2021

Source Description

The Air Quality Division (AQD) made a determination in January 2020 that Asama Coldwater Manufacturing, Inc. (ACM), located at 180 Asama Parkway, Coldwater, Michigan, and an adjacent core manufacturing facility, Gokoh Coldwater, Inc (GCI), located at 100 Concept Drive, Coldwater, Michigan are two separate stationary sources. The AQD's final determination was that the former determination of a single stationary source was no longer applicable as the equipment that had been inside GCI but owned by ACM is now solely owned by GCI. Operational control of the two facilities remains separate as in the past, as do other business functions for each facility. Therefore, Section 2 has been removed from the ROP. GCI submitted a Permit to Install (PTI) application to the permit section in March 2020 and was issued PTI No. 162-11B in September 2020 to operate separately from the ROP.

ACM operates two iron foundries at their location approximately one and a half miles northeast of downtown in the city of Coldwater. They produce both ductile and gray iron castings, such as steering and brake components, and other automotive parts for Honda. The foundries' processes consist of melting, pouring, and casting cooling equipment with electric induction furnaces. Emissions from these processes are controlled by baghouses and a regenerative thermal oxidizer. Other processes controlled by baghouses include the mold making, shakeout, and sand processing equipment.

ACM commenced operation in 1997 under Air Use PTI No. 139-96A as a minor source. An application was filed to reflect the status of ACM's operation and configuration, and PTI No. 139-96B was approved. In January 2004, a request for a permit revision was submitted to remove the synthetic minor emission limits for CO in PTI No. 139-96B and revise other aspects of the permit. The PTI No. 139-06C was issued on February 25, 2004. The existing foundry became a major source of CO and was required to submit an administratively complete ROP application by February 25, 2005. The ROP application was received on January 19, 2005.

On January 16, 2007, ACM was issued PTI No. 280-06 for the installation and operation of a new expansion foundry adjacent to the existing foundry. The new expansion foundry was a major source and was subject to Prevention of Significant Deterioration (PSD) review, 40 Code of Federal Regulations (CFR), Part 52.21; and National Emission Standard for Hazardous Air pollutants (NESHAP) Standards for Iron and Steel Foundries, 40 CFR Part 63, Subparts A and EEEEE. The PTI No. 280-06A was approved on October 15, 2007, for modification to the emission rates, stack heights, and minor changes to the final design of the new foundry. The existing foundry became subject to 40 CFR Part 63, Subparts A and EEEEE, three years after the startup of the new expansion foundry in December 21, 2007. ACM has implemented a clean scrap certification program. The emission units subject to the Iron and Steel Foundries NESHAP in PTI 280-06A and 280-06B are: EU-DSMELTPOUR (melting and pouring), EU-DSCOOLSHAK (cooling and shakeout), and FG-GFFOUNDRY (fugitive emissions from foundry operations) and applicable NESHAP requirements have been incorporated into the ROP.

On December 22, 2011, ACM was issued PTI No. 177-11 which authorized the installation of up to three coating lines that are subject to the NESHAP for Metal Part Coating Operations at major sources under 40 CFR Part 63, Subparts A and MMMM. The facility has installed only two of the three coating lines that were allowed under PTI No. 177-11. On December 13, 2017, ACM was issued PTI No. 184-17 for the installation of two grinders (FG-GRINDERS) at the facility. These are being incorporated into the ROP during this renewal period.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2019**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	113.16
Lead (Pb)	0.0005
Nitrogen Oxides (NO_x)	5.81
Particulate Matter (PM)	5.83
Sulfur Dioxide (SO_2)	0.87
Volatile Organic Compounds (VOCs)	26.98

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2019:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Manganese	0.006
Total Hazardous Air Pollutants (HAPs)	**0.006**

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

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

Regulatory Analysis

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

The stationary source is in Branch County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of carbon monoxide and volatile organic compounds exceed 100 tons per year. The potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

EU-GFMELTPOUR (formerly EUMPCC) and EU-DSMELTPOUR (formerly EU-MP) at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of carbon monoxide was greater than 100 tons per year.

The potential to emit GHGs from the entire stationary source is less than 100,000 tons per year. Currently, there are no GHG applicable requirements to include in the ROP. The mandatory GHG Reporting Rule under 40 CFR Part 98, is not an ROP applicable requirement and is not included in the ROP.

A stationary compression engine internal combustion engine (EU-EMERGEN1), located in the DISA foundry, fueled with No.2 fuel oil is used as an emergency generator. EU-EMERGEN1 at the stationary source is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

The stationary compression engine internal combustion engine (EU-EMERGEN1) and an additional natural gas fired emergency generator (EU-EMERGEN2), used for the paint lines, at the stationary source are subject to the NESHAP for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ on an after the initial compliance date of October 19, 2013.

EU-GFMELTPOUR (EU-MPCC-S1), EU-DSMELTPOUR (EU-MP-S1), EU-DSCOOLSHAK (EU-MCS-S1), and FG-DSFOUNDRY(FG-NEWFOUNDRY-S1) at the stationary source are subject to the NESHAP for Iron and Steel Foundries promulgated in 40 CFR Part 63, Subparts A and EEEEE. The facility installed a regenerative thermal oxidizer (RTO) in June 2013 on EU-DSCOOLSHAK to control volatile organic hazardous air pollutants (VOHAP) emission pursuant to PTI No. 280-06B and administrative Consent Order AQD No. 14-2013. RTO emission testing was conducted on September 5, 2013 and the emission unit tested in compliance with the VOHAP emission limit under 40 CFR Part 63, Subpart EEEEE. The facility has installed a continuous emission monitoring system on EU-DSCOOLSHAK to monitor the three-hour flow weighted average VOHAP concentration in accordance with the requirements of 40 CFR 63.7741(g). The facility fulfilled the requirements of the compliance program and implementation schedule under the administrative consent order and the requirements were not incorporated into the previous ROP renewal.

A coating operation, FG-PAINTLINES (FG-COATINGS-S1) consisting of two coating lines, EU-PAINTLINE1 (EULine-1-S1) and EU-PAINTLINE2 (EULine-2-S1) at the stationary source are subject to the NESHAP for Miscellaneous Metal Parts and Products promulgated in 40 CFR Part 63, Subparts A and MMMM by the initial compliance date. An affected source is a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility existed per 40 CFR 63.3882(c).

The facility received a violation in January of 2016 citing visible emissions testing frequency in FG-DSFOUNDRY (FG-NEWFOUNDRY) under 40 CFR Part 63, Subpart EEEEE. The facility satisfactorily resolved the violation on February 2, 2016. The most recent inspection was conducted in July 2020 and the facility was determined to be in compliance.

The AQD's Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. Emission units installed before December 20, 2016, can comply with the requirements of Rule 287 and Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the tables.

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

EU-GFMELTPOUR (EUMPCC-S1), EU-GFSANDSYS (EUSANDSYSTEM-S1), EU-DSMELTPOUR (EU-MP-S1), EU-DSCOOLSHAK (EU-MCS-S1), EU-DSMOLDSAND (EU-SS-S1), and EU-DSCOOLSHOT (EU-CCFBACK-S1) have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring (CAM) rule pursuant to 40 CFR Part 64, because the unit(s) have potential pre-control emissions over the major source thresholds. The emission units have a control device and potential pre-control emissions of PM and/or PM10 greater than the major source threshold level. Monitoring of the differential pressure across the baghouse collectors is performed on a continuous basis. Bag leak detection equipment is also installed in NESHAP subject emission unit baghouse collectors, as well as non-subject collectors. Fan amperage gauges are used the final indication of proper capture, with a range identified for exhaust system design optimal operation.

The emission limitation(s) or standard(s) for particulate matter or total metal HAP at the stationary source with the underlying applicable requirement(s) of 40 CFR Part 63, Subpart EEEEE from EU-DSMELTPOUR (EU-MP-S1) and VOHAP emissions from EU-DSCOOLSHAK (EU-MCS-S1) are exempt from the federal CAM regulation pursuant to 40 CFR 64.2(b)(1)(i) because particulate matter or total metal HAP and VOHAP meet the CAM exemption for NSPS or MACT proposed after November 15, 1990.

The following Emission Units/Flexible Groups are subject to CAM:

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
EU-GFMELTPOUR (EUMPCC-S1)	PM/0.005 gr/dscf exhaust gases or 2.1 pph	R 336.1331	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5” to 10” H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No
EU-GFSANDSYS (EUSANDSYSTEM-S1)	PM/0.005 gr/dscf exhaust gases or 2.8 pph	R 336.1331	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5” to 10” H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No
EU-DSMELTPOUR (EU-MP-S1)	PM10/0.30 pph	40 CFR 52.21(j)	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5” to 10” H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No
EU-DSCOOLSHAK (EU-MCS-S1)	PM10/2.47 pph	40 CFR 52.21(j)	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5” to 10” H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
EU-DSMOLDSAND (EU-SS-S1)	PM10/2.30 pph	40 CFR 52.21(j)	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5" to 10" H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No
EU-DSCOOLSHOT (EU-CCFBACK-S1)	PM10/2.64 pph	40 CFR 52.21(j)	Pulse Jet baghouse	Bag leak detection- 10pA to 60 pA Photohelic set points- 1.5" to 10" H2O Fan amperage – 140 to 200 amps	FG-CAMUNITS	No

*Presumptively Acceptable Monitoring (PAM)

Baghouses on site are used to control particulate emissions from the George Fischer (GF) and DISA foundry equipment emission units. Each of the control dust collectors is a continuous automatic, suction type baghouse. The facility also operates an RTO for control of VOHAP emissions from EU-DSCOOLSHAK which is exempt from CAM.

The facility monitors indicators to determine continuous compliance with PM limits. Bag Leak Detection System (BLDS) is monitored with a normal range between 10 pA and 60 pA. An alarm will trigger outside normal operating ranges which is set by vendor. This is inspected each shift and documented. Photohelic gauge set points are 1.5"-10" H2O based on vendor settings. Normal range is more stringent, set by maintenance department. The facility requires staff to notify the Environmental Health and Safety Department (EHS) if the range is greater than 8" H2O. Fan amperage range is based on proper fan operation and indicative of capture efficiency.

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

Source-Wide Permit to Install (PTI)

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

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-N5814-2015 are identified in Appendix 6 of the ROP.

PTI Number			
139-96	139-96C	280-06A	280-06B
177-11			

Streamlined/Subsumed Requirements

The following table lists explanations of any streamlined/subsumed requirements included in the ROP pursuant to Rules 213(2) and 213(6). All subsumed requirements are enforceable under the streamlined requirement that subsumes them.

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
FG-MACT5E_Existing	SC I.2	40 CFR 63.7690(a)(1)(i) or (ii)/ 0.005 gr/dscf PM or 0.0004 gr/dscf Total Metal HAP	40 CFR 63.7690(a)(5)(i) or (ii)/0.010 gr/dscf PM or 0.0008 gr/dscf Total Metal HAP	The emissions requirement in MACT5E for an Existing Pouring station have been subsumed into the requirements for an Existing Electric Arc or Electric Induction Furnace. The emission limits are in the same averaging time and emission limits from the existing furnace are more stringent than the limits for the pouring station. Emissions for both furnace and pouring station are routed through the same baghouse and emission streams cannot be differentiated for compliance purposes.
FG-MACT5E_New	SC I.2	40 CFR 63.7690(a)(4)(i) or (ii)/0.001 gr/dscf PM or 0.00008 gr/dscf Total Metal HAP	40 CFR 63.7690(a)(6)(i) or (ii)/0.002 gr/dscf PM or 0.0002 gr/dscf Total Metal HAP	The emissions requirement in MACT5E for a New Pouring station have been subsumed into the requirements for a New Electric Arc or Electric Induction Furnace. The emission limits are in the same averaging time and emission limits from the new furnace are more stringent than the limits for the new pouring station. Emissions for both furnace and pouring station are routed through

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
				the same baghouse and emission streams cannot be differentiated for compliance purposes.

Non-applicable Requirements

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

Processes in Application Not Identified in Draft ROP

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

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EU-HEATERS	Misc. fuel burning equipment for space heating, service water heating	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EU-MACHINING	Machining operations exhausted into the general in-plant environment	R 336.1212(3)(f)	R 336.1285(2)(r)(iv)

Draft ROP Terms/Conditions Not Agreed to by Applicant

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

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by EGLE, AQD

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

Purpose

A Staff Report dated March 29, 2021, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Mark Conti, General Manager 517-279-1090
AQD Contact:	Amanda Chapel, Senior Environmental Quality Analyst 269-910-2109

Summary of Pertinent Comments

EPA Comments:

EPA Comment 1:
Throughout the permit there are various requirements in the process and operational restrictions permit conditions between the different baghouses. For some of the EUs, the permit condition for baghouse maintenance varies greatly on what the practical enforceability is from a simple “operate properly” to a full out requirement to comply with an O&M plan, with baghouse pressure drop readings and BLDS. Language applying the practices from the O&M plan should be included in all the baghouse references.

AQD Response 1:
The terms “satisfactory manner” and “operating properly” come straight from PTI # 139-96 and 139-96A and was considered to be boilerplate NSR language at the time of permit issuance. District staff did not alter the ROP language from the original PTI in any manner. Periodic monitoring language was added to require periodic emission testing and daily visible observations to support the PM emission and opacity limit. The baghouses in the George Fischer foundry are now equipped with bag leak detection but this was not required by a PTI.

The terms “in accordance with an approved operation and maintenance plan” come straight from PTI # 280-06, 280-06A, and 280-06B and was considered to be updated boilerplate NSR language at the time of permit issuance ten years later. District staff did not alter the ROP language from the original PTI in any manner.

To address EPA’s concern, additional periodic monitoring will be added under the affected emission units (EU-GFMELTPOUR, EU-GFSANDSYS, and EU-SHOTBLAST) with language specifying that the baghouses shall be installed, operated, and maintained in accordance with an approved operation and maintenance (O&M) plan. The UAR for this condition will be R 336.1213(3) only as it is being added as periodic monitoring.

EPA Comment 2:
EU-DSCOOLSHOT: One page 33 of the draft ROP for EU-DSCOOLSHOT, the PM10 emissions limit has an underlying applicable requirement (UAR) of 40 CFR 52.21(j) only. As this is a BACT limit, you should also include the applicable rule from Michigan's Part 18 Rule as a UAR.

AQD Response 2:
The UAR R 336.2810 will be added to this condition. Based on a review of the DISA foundry conditions, this was also added to the EU-DSMOLDSAND, EU-DSCOOLSHAK, and EU-DSMELTPOUR emissions units.

Changes to the March 29, 2021 Draft ROP

EU-GFMELTPOUR: On page 16 "The permittee shall not operate EU-GFMELTPOUR unless the associated capture system and baghouse control system are installed, operated and maintained in accordance with the approved operation and maintenance (O&M) plan. **(R 338.1213(3))**" was added under III. Process/Operational Restrictions.

EU-GFSANDSYS: On page 19 "The permittee shall not operate EU-GFSANDSYS unless the associated capture system and baghouse control system are installed, operated and maintained in accordance with the approved operation and maintenance (O&M) plan. **(R 338.1213(3))**" was added under III. Process/Operational Restrictions.

EU-SHOTBLAST: On page 22 "The permittee shall not operate EU-SHOTBLAST unless the associated capture system and baghouse control system are installed, operated and maintained in accordance with the approved operation and maintenance (O&M) plan. **(R 338.1213(3))**" was added under III. Process/Operational Restrictions.

EU-DSMELTPOUR: On page 24 the UAR R 336.2810 was added under I.2 Emissions limits for PM10 under the Underlying Applicable Requirements column.

EU-DSCOOLSHAK: On page 27 the UAR R 336.2810 was added under I.2 Emissions limits for PM10 under the Underlying Applicable Requirements column.

EU-DSMOLDSAND: On page 30 the UAR R 336.2810 was added under I.1 Emissions limits for PM10 under the Underlying Applicable Requirements column.

EU-DSCOOLSHOT: On page 33 the UAR R 336.2810 was added under I.1 Emissions limits for PM10 under the Underlying Applicable Requirements column.