

State Registration Number
N5957

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N5957-2022

Real Alloy Specification, LLC

State Registration Number (SRN): N5957

Located at

368 West Garfield Road, Coldwater, Branch County, Michigan 49036
and
267 North Fillmore Road, Coldwater, Branch County, Michigan 49036

Permit Number: MI-ROP-N5957-2022

Staff Report Date: August 1, 2022

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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RENEWABLE OPERATING PERMIT

August 1, 2022 - STAFF REPORT

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; 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:	Real Alloy Specification, LLC 368 West Garfield Avenue Coldwater, Michigan 49036
Source Registration Number (SRN):	N5957
North American Industry Classification System (NAICS) Code:	331314
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201600147
Responsible Official:	Douglas Bryant, Plant Manager 517-279-4032
AQD Contact:	Amanda Cross, Senior Environmental Quality Analyst 269-910-2109
Date Application Received:	September 9, 2016
Date Application Was Administratively Complete:	September 9, 2016
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	August 1, 2022
Deadline for Public Comment:	August 31, 2022

Source Description

Real Alloy Specification, LLC owns and operates two secondary aluminum processing plants in Coldwater, Michigan. The two facilities are referred to as the North plant and the South plant. They are located on adjacent properties with different street address but operate as a single stationary source.

Real Alloy Specification, LLC recycles different types of scrap aluminum converting it to usable metal that is returned to customers or sold. Examples of scrap types processed include turnings, cast, dross, old sheet, extrusions, twitch, grindings and more. The Coldwater site operations consist of material handling, shredding, drying, cleaning, melting and casting. To support these operations, dross handling, and a variety of exempt and fugitive dust sources exist on site. Operations generally begin with receipt of aluminum scrap or dross by-product. Some of the received raw material is shredded for size reduction and dried to remove coolant and residual oils. The sized and dried metallic scrap is then charged to one of the melting furnaces where it is processed and either cast into solid ingots or sows or shipped to customers in refractory-lined crucibles as molten metal.

The Coldwater North Plant has three reverberatory melting furnaces, one holding furnace, an aluminum chip dryer, an aluminum shredder, a dross handling operation, and multiple crucible stations. These are denoted in the permit with AL in the emission unit name. Coldwater South Plant has two rotary melting furnaces that are commonly controlled, denoted as one emission unit, one reverberatory melting furnace, dross handling operations, multiple crucible stations, and a deox casting line. These are denoted in the permit with IM in the emission unit name. Furnace process emissions are controlled by lime injected fabric filter collectors.

The stationary source is located in an industrial park on the southwest side of the City of Coldwater. There are a number of other manufacturing operations in this industrial park that is approximately 1.5 miles southwest of downtown Coldwater. The topography in the industrial park is relatively flat.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2021**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	21.2
Lead (Pb)	0.001
Nitrogen Oxides (NO _x)	27.7
Particulate Matter (PM)	30.5
Sulfur Dioxide (SO ₂)	15.7
Volatile Organic Compounds (VOCs)	58.0

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

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Hydrochloric Acid	11.1
Hydrofluoric Acid	0.78
Total Hazardous Air Pollutants (HAPs)	11.88

**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 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.

EUALFURN1, EUALFURN2, EUALFURN7/8, EUALDRYER3, EUALSHREDDER, EUMHOTDROSS, EUMREVERBFURN, EUMROTFURN1/2, and EUMCRUCIBLES at the stationary source were subject to review under the Prevention of Significant Deterioration (PSD) regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of particulate matter was greater than 100 tons per year. The facility is one of the 28 listed source categories with regards to PSD.

EUALFURN1, EUALFURN2, EUALFURN7/8, EUALDRYER3, EUALSHREDDER, EUMREVERBFURN, and EUMROTFURN1/2, at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Secondary Aluminum Production promulgated in 40 CFR Part 63, Subparts A and RRR.

On February 12, 2009, the source filed a claim for bankruptcy through Chapter 11 and later under the plan of reorganization, changed the name of the Coldwater facilities to Aleris Specification Alloys, Inc. and Aleris Recycling, Inc. During a certain period of time, operations at both facilities were temporarily shut down. Additionally, PSD Permit to Install (PTI) application No. 173-09 was submitted to revise emission limits and for stack modifications to resolve compliance issues discovered during stack testing in 2008. The application was modeled for toxics and the permit was issued on July 20, 2009.

In April 2011, a modification to PTI No. 173-09 for inclusion of the dryer's afterburner bypass stack that is used only during startup, shutdown, and malfunction conditions was approved for equipment at both plants. On August 10, 2012, Aleris Recycling, Inc. was issued PTI No. 76-12 that increased the allowed annual feed/charge rate limit from 61,320 tons per year (tpy) to 90,540 tpy for EUMROTFURN1 and EUMROTFURN2, with associated increases in annual emission limits. New emission limits were established for PM10 and PM2.5 with the production rate increase allowance under PTI No. 76-12.

On October 16, 2013, Aleris Recycling, Inc. was issued PTI No. 76-12A that authorized Aleris Recycling, Inc. to perform emission testing on EUMROTFURN1 and EUMROTFURN2 under five trial combinations of lime, and trona injection to determine its effectiveness in reducing PM10 and PM2.5 emissions. On November 18, 2013, Aleris Specification Alloys, Inc. was issued PTI No. 126-13 that authorized an increase in the HCL emission limits for EUALFURN1, EUALFURN7, and EUALFURN8. On January 22, 2014, an administrative amendment was approved to permit MI-ROP-N5957-2012b to reflect a name change of the parent company from Aleris International, Inc. to Aleris Recycling, Inc.

On June 4, 2014, Aleris Recycling, Inc. entered into administrative Consent Order AQD No. 35-2014 to address alleged exceedances of permit limitations for total hydrocarbons, dioxin-furan, PM, PM10, and PM2.5 from the Coldwater South Plant rotary furnaces; alleged exceedances of the chlorine pound per ton feed charge limit on EUALFURN8, and the PM10 emission limits on the hearth flues for EUALFURN7 and EUALFURN8; and alleged failure to operate EUALDRYER3 in accordance with the operation, maintenance, and monitoring plan submitted on August 27, 2013, at Aleris Specification Alloys, Inc. The compliance program under administrative Consent Order AQD No. 35-2014 required the facility to submit

administratively complete permit applications to address the alleged emission exceedances, and also required the facility to conduct additional stack testing in 2015.

On December 18, 2014, PTI No. 192-14 was issued to Aleris Recycling, Inc. to allow relocation of the baghouse exhaust stack for EUIMROTFURN1 and EUIMROTFURN2. On March 10, 2015, an administrative amendment was approved to permit No. MI-ROP-N5957-2012d to reflect a facility name change for the Coldwater North Plant to Real Alloy Specification, Inc., and for the Coldwater South Plant to Real Alloy Recycling, Inc. On July 20, 2015, PTI No. 110-15 was issued to reroute the uncontrolled furnace flue stacks for EUALFURN7 and EUALFURN8 at the Coldwater North Plant through a lime injected fabric filter collector control device that exhaust through a common stack at least 95 feet above ground level to reduce PM10 and PM2.5 emissions. The PTI No. 110-15 also authorized the replacement of burners in rotary furnaces EUIMROTFURN1 and EUIMROTFURN2 with oxyfuel burners of like capacity that allow the option to supplement combustion with oxygen; installation of doors on EUIMROTFURN1 and EUIMROTFURN2 to improve thermal efficiency of each unit; installation of four additional baghouse modules on the fabric filter collector that control process emissions from the Coldwater South Plant rotary furnaces to reduce PM10 and PM2.5 emissions.

On August 16, 2016, PTI No. 109-16 was issued to Real Alloy Specification, Inc. to install two 5 MMBTU/hour gas fired duct heaters to prevent condensation of wet flue exhaust gases prior to the lime injected fabric filter collector control device for EUALFURN7 and EUALFURN8. The purpose of the duct heaters is to maintain the exhaust gas temperature above the dew point. There was no change to NOx emission limits as the result of the modification to this process equipment. On October 23, 2017, PTI No. 109-16A was issued to Real Alloy Specification, Inc. that increased the flue gas NOx emission limits for EUALFURN7 and EUALFURN8 based on recent emission testing results and modeling impacts; removed flue gas HCL and HF emission limits for EUALFURN7 and EUALFURN8 based on recent emission testing results and toxic air contaminant modeling (AERMOD) results that demonstrated impacts were less than one percent of their respective health screening levels; and corrected an erroneous HCL emission limit typo (i.e., 0.35 pounds/ton feed charge vs. 0.035 pounds/ton feed charge) that applied to EUALFURN1. On February 2, 2018, PTI No. 216-16A was issued to Real Alloy Recycling, Inc. for permanent installation of a low temperature oxy-fuel burner on EUIMROTFURN2.

Stemming from three Violation Notices issued to the stationary source between June and September 2018, an Administrative Consent Order (ACO) AQD. No. 2019-29 was agreed to by AQD and the Facility and entered on November 26, 2019. The violation notices stated the Company had exceeded the permit limits for NOx, PM10, and HCl from EUIMREVERBFURN and associated flue; exceeded the permit limit for PM and PM10 from EUALFURN1 and associated flue; exceeded the permit limit for PM, PM10, NOx, and SO2 from EUALFURN7 and EUALFURN8; and exceeded the permit limit for NOx and PM from EUALFURN2 and associated flue. The facility requested decreases in material throughputs which will decrease annual emissions to less than significance thresholds. The prior ACO AQD No. 35-2014 was terminated on August 28, 2018.

Simultaneously with the issuance of the ACO, the source obtained PTI Nos. 63-19 and 64-19 to increase certain short-term NOx limits, as well as increasing some HCl, PM10 and PM2.5 emission limitations. Before these PTIs were rolled into the ROP, the facility was issued PTI No. 63-19B for changes to PM10 and PM2.5 emission rates for EUALFURN1 and establish PSD opt-out limits. This permit went through public comment before being issued in October 2020. This permit contains all emission units contained in PTI Nos. 63-19 and 64-19, except EUIMDRYER which has been removed from site, and took what was Section 1 and Section 2 in the ROP and combined them into one permit, with PSD opt out limits for the facility. The facility's ACO states the facility must comply with emission limits and testing/sampling conditions established in PTI Nos. 63-19 and 64-19, as amended, and any subsequent incorporation of these limits into the Company's ROP.

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."

EUALFURN1, EUALFURN7/8, EUALDRYER3, EUALSHREDDER, EUALDROSS, EUIMREVERBFURN, EUIMROTFURN1/2, and EUIMHOTDROSS have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because the units have potential pre-control emissions over the major source thresholds.

EUALFURN1 is subject to CAM for PM, PM10, and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. The control device is a 60,000 CFM, lime-injected baghouse. EUALFURN7/8 is subject to CAM for PM, PM10, and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. Emissions from natural gas combustion are controlled by two lime-injected baghouses, each 45,000 CFM. This also includes two 5 MMBTU/hr natural gas fired duct heaters to maintain the flue gas temperature above the dew point. Emissions from fluxing and melting are controlled by a 65,000 CFM lime-injected baghouse. EUALDRYER3 is subject to CAM for HCl where the potential to emit, pre-control, is above 10 tpy and PM, PM10, and PM2.5 are above 100 tpy and below 100 tpy post-control. The dryer is controlled by an afterburner, cyclone, and 43,000 CFM baghouse.

EUALSHREDDER is subject to CAM for PM, PM10, and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. A 34,000 CFM baghouse controls emissions from the emission unit. EUALDROSS is subject to CAM for PM, PM10, and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. The control device is a 50,000 CFM baghouse.

EUIMREVERBFURN is subject to CAM for HCl where the potential to emit, pre-control, is above 10 tpy and PM10 and PM2.5 emission limits with potential pre-control emissions are above 100 tpy and below 100 tpy post-control. Emissions from fluxing and melting are controlled by a 70,000 CFM lime-injected baghouse. EUIMROTFURN1/2 is subject to CAM for PM10 and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. The control devices are oxy-fuel burners and an 80,000 CFM, lime-injected baghouse. EUIMHOTDROSS is subject to CAM for PM, PM10, and PM2.5 emission limits. Potential pre-control emissions are above 100 tpy and below 100 tpy post-control. The control device is a 40,000 CFM baghouse.

The emission limitation(s) or standard(s) for particulate matter (PM) at the stationary source with the underlying applicable requirement(s) of 40 CFR Part 63, Subpart RRR from EUIMREVERBFURN and EUIMROTFURN1/2 are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(i) because PM meets 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? *
EUALFURN1	PM/0.10 lb/ton of feed charge PM/2.48 tpy	R 336.2810 R 336.1205(1) (a) & (3)	Lime-injected 60,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 120 sec. Inlet Gas Temp: 136F (max) Lime Flow Set Point: 3 Lime Flow rate: 118 lb/hr (min) Flow: Flowing (via visual observation) Reactive Flux Injection Rate: 67.6 lb chlorine/ton feed/charge (max) Molten Metal Height above Arch: 15 inches (min)	FGCAMUNITS	No
EUALFURN1	PM10/0.10 lb/ton of feed charge PM10/2.48 tpy	R 336.2810, R 336.1205(1) (a) & (3), 40 CFR 52.21 (c) & (d) R 336.2810	Lime-injected 60,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 120 sec. Inlet Gas Temp: 136F (max) Lime Flow Set Point: 3 Lime Flow rate: 118 lb/hr (min) Flow: Flowing (via visual observation) Reactive Flux Injection Rate: 67.6 lb chlorine/ton feed/charge (max) Molten Metal Height above Arch: 15 inches (min)	FGCAMUNITS	No
EUALFURN1	PM2.5/0.10 lb/ton of feed charge PM2.5/2.48 tpy	R 336.2810, 40 CFR 52.21 (c) & (d) R 336.1205(1) (a) & (3)	Lime-injected 60,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 120 sec. Inlet Gas Temp: 136F (max) Lime Flow Set Point: 3	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
				Lime Flow rate: 118 lb/hr (min) Flow: Flowing (via visual observation) Reactive Flux Injection Rate: 67.6 lb chlorine/ton feed/charge (max) Molten Metal Height above Arch: 15 inches (min)		
EUALFURN7/8 via SVALBH7/8	PM/0.15 lb/ton of feed/charge PM/ 4.50 tpy	R 336.2810 R 336.2810	Lime-injected 65,000 CFM baghouse	BLDS Alarm Setpoint: 3 (in range of 0-100) BLDS Alarm Delay: 137 sec. Inlet Gas Temperature: 169F (max) Lime Flow Set Point: 3 Lime Flow rate: 76 lb/hr (min) Flow: Flowing (via visual observation) Reactive Flux Injection Rate #7: 77.9 lb Chlorine/ton charged (max) Reactive Flux Injection Rate #8: 70.1 lb Chlorine/ton charged (max) Molten Metal Height above Arch: 15 inches (min)	FGCAMUNITS	No
EUALFURN7/8 via SVALBH7/8	PM10/0.27 lb/ton of feed/charge PM10/8.1 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Lime-injected 65,000 CFM baghouse	BLDS Alarm Setpoint: 3 (in range of 0-100) BLDS Alarm Delay: 137 sec. Inlet Gas Temperature: 169F (max) Lime Flow Set Point: 3 Lime Flow rate: 76 lb/hr (min)	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
				Flow: Flowing (via visual observation) Reactive Flux Injection Rate #7: 77.9 lb Chlorine/ton charged (max) Reactive Flux Injection Rate #8: 70.1 lb Chlorine/ton charged (max) Molten Metal Height above Arch: 15 inches (min)		
EUALFURN7/8 via SVALBH7/8	PM2.5/0.27 lb/ton of feed/charge PM2.5/8.1 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Lime-injected 65,000 CFM baghouse	BLDS Alarm Setpoint: 3 (in range of 0-100) BLDS Alarm Delay: 137 sec. Inlet Gas Temperature: 169F (max) Lime Flow Set Point: 3 Lime Flow rate: 76 lb/hr (min) Flow: Flowing (via visual observation) Reactive Flux Injection Rate #7: 77.9 lb Chlorine/ton charged (max) Reactive Flux Injection Rate #8: 70.1 lb Chlorine/ton charged (max) Molten Metal Height above Arch: 15 inches (min)	FGCAMUNITS	No
EUALFURN7/8 via SVALFURN7/8	PM/0.15 lb/ton of feed/charge PM/4.50 tpy	R 336.2810 R 336.2810	Two lime-injected 45,000 CFM baghouses Two 5 MMBTU/hr natural gas fired duct heaters	BLDS Alarm Setpoint: 21 (in range of 0-100) BLDS Alarm Delay: 60 sec. Inlet Gas Temperature: 350F (max) Lime Flow Set Point: 11.6 hz Lime Flow rate: 10 lb/hr	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
				Flow: Flowing (via visual observation)		
EUALFURN7/8 via SVALFURN7/8	PM10/0.15 lb/ton of feed/charge PM10/4.50 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Two lime-injected 45,000 CFM baghouses Two 5 MMBTU/hr natural gas fired duct heaters	BLDS Alarm Setpoint: 21 (in range of 0-100) BLDS Alarm Delay: 60 sec. Inlet Gas Temperature: 350F (max) Lime Flow Set Point: 11.6 hz Lime Flow rate: 10 lb/hr Flow: Flowing (via visual observation)	FGCAMUNITS	No
EUALFURN7/8 via SVALFURN7/8	PM2.5/0.15 lb/ton of feed/charge PM2.5	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Two lime-injected 45,000 CFM baghouses Two 5 MMBTU/hr natural gas fired duct heaters	BLDS Alarm Setpoint: 21 (in range of 0-100) BLDS Alarm Delay: 60 sec. Inlet Gas Temperature: 350F (max) Lime Flow Set Point: 11.6 hz Lime Flow rate: 10 lb/hr Flow: Flowing (via visual observation)	FGCAMUNITS	No
EUALFURN7/8 via SVALFURN7/8	HCl/12.00 tpy	R 336.1225, R 336.1205(1) (a) & (3)	Two lime-injected 45,000 CFM baghouses Two 5 MMBTU/hr natural gas fired duct heaters	BLDS Alarm Setpoint: 21 (in range of 0-100) BLDS Alarm Delay: 60 sec. Inlet Gas Temperature: 350F (max) Lime Flow Set Point: 11.6 hz Lime Flow rate: 10 lb/hr Flow: Flowing (via visual observation)	FGCAMUNITS	No
EUALDRYER 3	PM/0.39 lb/ton of feed/charge PM/8.07 tpy	R 336.2810 R 336.1205(1) (a) & (3)	Afterburner, cyclone, and 43,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Baghouse Inlet Gas Temperature: 408F (max)	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
				Afterburner Temperature: 1,443F (min)		
EUALDRYER 3	PM10/0.48 5 lb/ton of feed/charge PM10/10.0 4 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Afterburner, cyclone, and 43,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Baghouse Inlet Gas Temperature: 408F (max) Afterburner Temperature: 1,443F (min)	FGCAMUNITS	No
EUALDRYER 3	PM2.5/0.4 85 lb/ton of feed/charge PM2.5/10.04 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810	Afterburner, cyclone, and 43,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Baghouse Inlet Gas Temperature: 408F (max) Afterburner Temperature: 1,443F (min)	FGCAMUNITS	No
EUALDRYER 3	THC/0.65 lb/ton of feed/charge THC/13.46 tpy	R 336.2810 R 336.2810	Afterburner, cyclone, and 43,000 CFM baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Baghouse Inlet Gas Temperature: 408F (max) Afterburner Temperature: 1,443F (min)	FGCAMUNITS	No
EUALSHRED DER	PM/0.10 lb/ton of feed/charge PM/2.74 tpy	R 336.1205(1) (a) & (3) R 336.1205(1) (a) & (3)	34,000 CFM baghouse with a leak detection system	Continuous Bag Leak Detector System (BLDS) and baghouse inlet gas temperature BLDS Alarm Setpoint: 9 (in range of 0-100) BLDS Alarm Delay: 137 sec. Baghouse Inlet Gas Temperature: 118F (max)	FGCAMUNITS	No
EUALSHRED DER	PM10/0.10 lb/ton of	R 336.1205(1) (a) & (3), 40	34,000 CFM baghouse with a leak	Continuous Bag Leak Detector System (BLDS) and	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
	feed/charge PM10/2.74 tpy	CFR 52.21 (c) & (d) R 336.1205(1) (a) & (3)	detection system	baghouse inlet gas temperature BLDS Alarm Setpoint: 9 (in range of 0-100) BLDS Alarm Delay: 137 sec. Baghouse Inlet Gas Temperature: 118F (max)		
EUALSHRED DER	PM2.5/0.10 lb/ton of feed/charge PM2.5/2.74 tpy	R 336.1205(1) (a) & (3), 40 CFR 52.21 (c) & (d) R 336.1205(1) (a) & (3)	34,000 CFM baghouse with a leak detection system	Continuous Bag Leak Detector System (BLDS) and baghouse inlet gas temperature BLDS Alarm Setpoint: 9 (in range of 0-100) BLDS Alarm Delay: 137 sec. Baghouse Inlet Gas Temperature: 118F (max)	FGCAMUNITS	No
EUALDROSS	PM/0.115 lb/hr PM/0.50 tpy	R 336.1205(1) (a) & (3) R 336.1205(1) (a) & (3)	50,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No
EUALDROSS	PM10/0.8 lb/hr PM10/3.50 tpy	R 336.1205(1) (a) & (3), 40 CFR 52.21 (c) & (d) R 336.1205(1) (a) & (3)	50,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No
EUALDROSS	PM2.5/0.8 lb/hr PM2.5/3.50 tpy	R 336.1205(1) (a) & (3), 40 CFR 52.21 (c) & (d) R 336.1205(1) (a) & (3)	50,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No
EUIMREVER BFURN	PM10/0.25 lb/ton of	R 336.1205(1) (a) & (3)	Lime-injected	BLDS Alarm Setpoint: 11 (in range of 0-100)	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
	feed/charge PM10/0.75 tpy	R 336.1205(1) (a) & (3)	70,000 CFM baghouse	BLDS Alarm Delay: 24 sec. Inlet Gas Temperature: 112F max Lime Flow Set Point: 0.50 minimum Lime Flow rate: 27 lb/hr Lime Flow: Flowing (via visual observation) Reactive Flux Injection Rate: 52.8 lb Chlorine/ton charged (max) Molten Metal Height above Arch: 15 inches (min)		
EUIMREVER BFURN	PM2.5/0.2 5 lb/ton of feed/charge PM2.5/0.7 5 tpy	R 336.1205(1) (a) & (3) R 336.1205(1) (a) & (3)	Lime-injected 70,000 CFM baghouse	BLDS Alarm Setpoint: 11 (in range of 0-100) BLDS Alarm Delay: 24 sec. Inlet Gas Temperature: 112F max Lime Flow Set Point: 0.50 minimum Lime Flow rate: 27 lb/hr Lime Flow: Flowing (via visual observation) Reactive Flux Injection Rate: 52.8 lb Chlorine/ton charged (max) Molten Metal Height above Arch: 15 inches (min)	FGCAMUNITS	No
EUIMROTFU RN1/2	PM10/0.50 lb/ton of feed/charge	R 336.2810, 40 CFR 52.21 (c) & (d)	Oxy-fuel burners and 80,000 CFM lime-injected baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Inlet Gas Temperature: 221F (max)	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
	PM10/22.64 tpy	R 336.2810, 40 CFR 52.21 (c) &(d)		Lime Flow #1 Set Point: 2 Lime Flow #2 Set Point: 2 Lime Flow Rate (Total of #1 and #2): 174 lb/hr Flow: Flowing (via visual observation) Reactive Flux Injection Rate #1; 267 lb chlorine/ton charged (max) Reactive Flux Injection Rate #2: 262 lb chlorine/ton charged (max)		
EUIMROTFU RN1/2	PM2.5/0.50 lb/ton of feed/charge PM2.5/22.64 tpy	R 336.2810, 40 CFR 52.21 (c) &(d) R 336.2810, 40 CFR 52.21 (c) &(d)	Oxy-fuel burners and 80,000 CFM lime-injected baghouse	BLDS Alarm Setpoint: 14 (in range of 0-100) BLDS Alarm Delay: 96 sec. Inlet Gas Temperature: 221F (max) Lime Flow #1 Set Point: 2 Lime Flow #2 Set Point: 2 Lime Flow Rate (Total of #1 and #2): 174 lb/hr Flow: Flowing (via visual observation) Reactive Flux Injection Rate #1; 267 lb chlorine/ton charged (max) Reactive Flux Injection Rate #2: 262 lb chlorine/ton charged (max)	FGCAMUNITS	No
EUIMHOTDR OSS	PM/0.90 pph PM/3.942 tpy	R 336.1205(1)(3)	40,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No

Emission Unit/Flexible group ID	Pollutant/Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
EUIMHOTDR OSS	PM10/0.90 pph PM10/3.94 2 tpy	R 336.1205 (1)(3)	40,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No
EUIMHOTDR OSS	PM2.5/0.90 pph PM2.5/3.9 42 tpy	R 336.1205 (1)(3)	40,000 CFM baghouse	Pressure drop across baghouse (in range 0-12 inches water column) collected once every 4-hours	FGCAMUNITS	No

*Presumptively Acceptable Monitoring (PAM)

The CAM plan for Real Alloy Specification, LLC contains monitoring approaches for varying baghouses, as well as other pollution control devices around the facility. Most of the baghouses have the ability to inject lime into the process. The baghouses that have bag leak detection systems (BLDS) have a denoted alarm setpoint and time delay noted in the CAM plan. The lime-injected baghouses have setpoints for lime injection and lime flow rates. This is typically monitored visually. Maximum temperatures for the baghouses are also monitored.

Other things that are monitored, where appropriate are the reactive flux injection rate, lime flow setpoint and flow rate, inlet gas temperature, and molten metal height above the arch. Where there is an afterburner, the temperature is monitored continuously and reported in 15-minute block averages. The BLDS is maintained in accordance with manufacturer recommendations. The afterburner and baghouse inlet gas temperature thermocouples are checked at least every 6 months.

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-N5957-2012 are identified in Appendix 6 of the ROP.

PTI Number			
20-02	20-02A	321-96A	321-96E
321-96F	372-07	33-08	33-08A
173-09	173-09A		

Streamlined/Subsumed Requirements

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

Non-applicable Requirements

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

Processes in Application Not Identified in Draft ROP

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

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUALBANJO	1,350,000 BTU/hr gas preheater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALINGOTLINE1/2	2 x 6,000,000 BTU/hr gas preheaters	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCEILMAINTHTRS	2 x 300,000 BTU/hr gas ceiling heaters	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUCOMFURNBACK ROWOF/LUNCH	2 x 80,000 BTU/hr gas furnaces for comfort heating	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALWATERHTR	40,000 BTU/hr gas hot water heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALSCALEFURN	80,000 BTU/hr gas furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALBREAKFURN	1 x 80,000 BTU/hr gas back break room furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALLABFURN	1 x 200,000 BTU/hr gas assay furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCOMFURNBAY9 and 10	2 x 250,000 BTU/hr gas comfort furnaces	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCEILHTRSPR	400,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCOMFURNOFLB	80,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCOMFURNOF	125,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUALCOMFURNRECOF	80,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIIMAINOF	300,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIIMFACBLD	115,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIIMBREAK	300,000 BTU/hr gas comfort furnace	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIIMSTOCKR	100,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUIMMAINSH	125,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMCARMOLDHEAT	2,000,000 BTU/hr gas preheater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMROTMOLDHEAT	2 x 3,000,000 BTU/hr gas preheaters	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMWATERHRS	2 x 399,980 BTU/hr gas hot water heaters	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMEVAPORATOR	60,000 BTU/hr gas water evaporator	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMMOTORC	200,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMCEILWASH	75,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMCEILVM	125,000 BTU/hr gas ceiling heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EUIMVMDRADIANT	1 x 200,000 BTU/hr gas fired radiant heater	R 336.1212(4)(b)	R 336.1282(2)(b)(i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

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

Compliance Status

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

Action taken by 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 Mr. 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.

State Registration Number
N5957

RENEWABLE OPERATING PERMIT
September 6, 2022 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N5957-2022

Purpose

A Staff Report dated August 1, 2022, 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:	Douglas Bryant, Plant Manager 517-279-4032
AQD Contact:	Amanda Cross, Senior Environmental Quality Analyst 269-910-2109

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the August 1, 2022 Draft ROP

No changes were made to the draft ROP.