PERMIT NO. 3341-015-0115-S-03-0
ISSUANCE DATE: May 3, 2019

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality Permit

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name:	**VMC Specialty Alloys**
Facility Address:	**800 Martin Luther King Jr. Drive** **Adairsville, Georgia 30103 (Bartow County)**
Mailing Address:	**800 Martin Luther King Jr. Drive** **Adairsville, Georgia 30103**
Facility AIRS Number:	**04-13-015-00115**

is issued a Permit for the following:

Operation of an aluminum alloying facility and for the construction and operation of two aluminum homogenizing furnaces (HO10 and HO11), two melting furnaces (FCE10 and FCE11) and one preheater (PRE6).
This Permit is issued for the purpose of establishing practically enforceable emission limitations such that the facility will not be considered a major source with respect to Title V of the Clean Air Act Amendments of 1990.

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 26875 dated December 5, 2018; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **5** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM JUSTICE MODERATION
1776

[Signed]

Richard E. Dunn, Director
Environmental Protection Division

1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

2. Allowable Emissions

2.1 The Permittee shall not discharge, or cause the discharge into the atmosphere, from the entire facility, nitrogen oxides (NO_X) in an amount equal to or exceeding 100 tons during any twelve consecutive month period.

2.2 The Permittee shall burn only natural gas in the melting furnaces and in the homogenizing furnaces.

2.3 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from all process equipment, any gases which exhibit visible emissions, the opacity of which is equal to or greater than 40 percent, unless otherwise specified.

2.4 The Permittee shall not cause, let, suffer, permit, or allow the emission from any source, particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit.

a. $E = 4.1P^{0.67}$, for process input weight rate up to and including 30 tons per hour;

b. $E = 55P^{0.11} - 40$, for process input weight rate in excess of 30 tons per hour.

Where:
E = allowable emission rate in pounds per hour;
P = process input weight rate in tons per hour.

2.5 The Permittee shall only burn clean charge in the furnaces. Clean charge as defined under 40 CFR 63 Subpart RRR - *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production* means furnace charge materials including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; uncoated/unpainted thermally dried aluminum chips; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher; other oil- and lubricant-free unpainted/ uncoated gates and risers; oil-and lubricant-free unpainted/uncoated aluminum scrap, shapes, or products (*e.g.*, pistons) that have not undergone any process (*e.g.*, machining, coating, painting, etc.) that would cause contamination of the aluminum (with oils, lubricants, coatings, or paints); and internal runaround

2.6 The Pemittee shall maintain a Scrap Metal Inspection Program to ensure that all metal processed in the furnaces is clean charge. All QA/QC practices and criteria shall be stated in the Scrap Metal Inspection Program. The program shall be subject to review and, if necessary to assure compliance, modification by the Division. Any changes to the Scrap Metal Inspection Program shall be submitted to the Division for review and approval prior to implementation.

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

4. Process & Control Equipment

4.1 Not applicable.

5. Monitoring

5.1 Not applicable.

6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

7. Notification, Reporting and Record Keeping Requirements

7.1 The Permittee shall maintain all records associated with the Scrap Metal Inspection Program including any revisions to the plan.

7.2 The Permittee shall retain the records of the quantity of natural gas burned monthly in the Metal Melting Furnaces, Homogenizing Furnaces and the Pre-Heaters.

7.3 The Permittee shall use the following equation to calculate the amount of nitrogen oxides (NO_X) emitted each month (monthly emission rate: ER_{MMF}) from the Metal Melting Furnaces:

$$ER_{MMF}\left(\frac{lb_{NO_X}}{month}\right) = \left[FuelUsed\left(\frac{cubicfeet_{NG}}{month}\right) \times 7.529\ x\ 10^{-5}\left(\frac{lb_{NO_X}}{cubicfeet_{NG}}\right)\right]$$

Where:

ER_{MMF}	=	Monthly calculated Metal Melting Furnaces NO_X emissions (pounds per month)
Fuel Used	=	Monthly fuel used in all Metal Melting Furnaces (cubic feet of natural gas (NG) per month as recorded per Condition 7.2)
7.529×10^{-5}	=	Emission factor determined during most recent performance test (lb_{NOx}/cu-ft)

7.4 The Permittee shall use the following equation to calculate the amount of nitrogen oxides (NO_X) emitted each month (monthly emission rate: ER_{HF}) from the Homogenizing Furnaces:

$$ER_{HF}\left(\frac{lb_{NO_X}}{month}\right) = \left[FuelUsed\left(\frac{cubicfeet_{NG}}{month}\right) \times 5.742\ x\ 10^{-5}\left(\frac{lb_{NO_X}}{cubicfeet_{NG}}\right)\right]$$

Where:

ER_{HF}	=	Monthly calculated Homogenizing Furnaces NO_X emissions (pounds per month)
Fuel Used	=	Monthly fuel used in all Homogenizing Furnaces (cubic feet of natural gas (NG) per month as recorded per Condition 7.2)
5.742 x 10^{-5}	=	Emission factor determined during most recent performance test (lb_{NOx}/cu-ft)

7.5 The Permittee shall use the following equation to calculate the amount of nitrogen oxides (NO_X) emitted each month (monthly emission rate: ER_{PH}) from the Pre-Heaters:

$$ER_{PH}\left(\frac{lb_{NO_X}}{month}\right) = \left[FuelUsed\left(\frac{cubicfeet_{NG}}{month}\right) \times 5.742\ x\ 10^{-5}\left(\frac{lb_{NO_X}}{cubicfeet_{NG}}\right)\right]$$

Where:

ER_{PH}	=	Monthly calculated Pre-Heaters NO_X emissions (pounds per month)
Fuel Used	=	Monthly fuel used in all Pre-Heaters (cubic feet of natural gas (NG) per month as recorded per Condition 7.2)
5.742 x 10^{-5}	=	Emission factor determined during most recent performance test (lb_{NOx}/cu-ft)

7.6 The Permittee shall use the calculations required in Conditions 7.3 through 7.5 to calculate combined total monthly NOx emissions from the facility. All demonstration calculations, including any Division-approved emission factors used in the calculations, shall be kept as part of the monthly records. The Permittee shall notify the Division in writing if the combined total monthly NOx emissions from the facility exceed 8.3 tons during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit in Condition 2.1.

7.7 The Permittee shall use the monthly NOx emission data required in Condition 7.6 to calculate the combined 12-month rolling total of NOx emissions from the facility for each calendar month. The Permittee shall notify the Division in writing if the combined 12-month rolling total of NOx emissions from the facility equals or exceeds 100 tons. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.1.

8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."

8.2 All Georgia Air Quality Permits previously issued to this facility, including Air Quality Permit No. 3341-015-0115-B-02-0 and its amendments, are hereby revoked in their entirety.