

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on September 18, 2017.

Permit Number: **R30-01900001-2017**
Application Received: **December 13, 2017**
Plant Identification Number: **019-00001**
Permittee: **WVA Manufacturing, LLC**
Facility Name: **Alloy Facility**
Mailing Address: **P. O. Box 158, Alloy, West Virginia 25002**

Permit Action Number: *MM01* Revised: *April 24, 2018*

Physical Location: Alloy, Fayette County, West Virginia
UTM Coordinates: 476.01 km Easting • 4221 km Northing • Zone 17
Directions: Facility is located on the Kanawha River, approximately 30 miles southeast of Charleston, WV on US Route 60.

Facility Description

SIC Codes: 3313 and 4911

WVA Manufacturing, LLC (Alloy Facility) owns and operates a ferroalloy manufacturing plant producing silicon, ferrosilicon, slags, and other alloys near Alloy, Fayette County, WV. Coal, silica gravel, charcoal, wood chips, and other raw materials are brought to the plant primarily by truck, rail, and barge. These raw materials are sent to the mix building. The raw materials are then proportionally mixed and conveyed to each of the electric arc furnaces (EAF) where they are reduced to the ferroalloy. Molten metal is tapped into large ladles and cast into chills. After the metal hardens, it is sent to packing areas for crushing, sizing, and packaging. The product is shipped directly by rail or packaged and shipped to customers. The nominal capacity of the ferroalloy smelter is 121,000 tons of ferroalloy per year. Fume (microsilica) from the furnaces is processed into salable products. The microsilica product facility has a nominal capacity to ship 40,000 tons per year. The ferroalloy smelter and the microsilica product facility each have the potential to operate twenty-four (24) hours a day, seven (7) days per week for fifty-two (52) weeks per year.

The purpose of this modification is to revise work practice requirements in condition 5.1.20.a.

Emissions Summary

There are no emissions changes associated with this modification.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 1904 TPY of CO, 2956 TPY of NO_x, 777 TPY of PM₁₀, 3115 TPY of SO₂, 147 TPY of VOC, 227 TPY of HCl, and 245.57 TPY of total HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, WVA Manufacturing, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

| | | |
|--------------------|---------|-------------------------------|
| Federal and State: | 45CSR13 | NSR Permit |
| | 45CSR30 | Operating permit requirement. |

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

| Permit or Consent Order Number | Date of Issuance | Permit Determinations or Amendments That Affect the Permit (<i>if any</i>) |
|--------------------------------|-------------------|--|
| R14-0017D | February 27, 2018 | |

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

Condition 5.1.20 (condition A.22 of R14-0017C) previously required that: “Even after the expiration of consent order CO-R14-E-2002-2003 West Virginia Alloys, Inc. shall continue to follow all requirements and work practices as outlined in section V.9 of said consent order.”

Section V.9.a. of said consent order requires that the casting process reduce the gas flow level used for refining, to lower generation of fugitive particular matter emissions while using the floating slag refining technique for casting process and to reduce fugitive particulate matter for casting stations and ladle rake out stations for Furnaces 3, 6, 7, 9, 14, and 15. WVA Manufacturing claimed this condition is no longer possible because they have switched from a floating slag to a sinking slag refining process. This results in the creation of a heavy, viscous slag that settles in the bottom of the ladle and inhibits the normal flow of gas from the plug up through the molten metal bath. As the plug ages, the porous nature of the buildup on top of the plug necessitates that the gas flow be increased to allow the gas to be circulated through the bath to promote the refining activity.

Therefore, condition 5.1.20.a (condition A.22 of R14-0017D) was modified to state the following:

“The casting process is to minimize the flow of gas (air and oxygen flow rate shall not exceed 20 cfm) through the plug on the bottom of the ladle which is used to control refining. After the metal casting process is complete and the bottom bubbling plug is no longer immersed in the molten metal bath, WVA Manufacturing will go into purge cycle (not to exceed 40 cfm) to maintain flow through the plug and minimize blinding the plug. Gas flow will continue to be minimized with the intent of maintaining the ladle for usability on the next tap cycle on each furnace.”

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: N/A
Ending Date: N/A

Point of Contact

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
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Charleston, WV 25304
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478
Rex.E.Compston@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.