

Fact Sheet



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

Permit Number: **R30-01900001-2017**
Application Received: **December 19, 2016**
Plant Identification Number: **019-00001**
Permittee: **WVA Manufacturing, LLC**
Facility Name: **Alloy Facility**
Mailing Address: **P. O. Box 158, Alloy, West Virginia 25002**

Revised: N/A

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.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2016 Actual Emissions
Carbon Monoxide (CO)	1904	852.33
Nitrogen Oxides (NO _x)	2956	1167.04
Particulate Matter (PM _{2.5})	525	208.95
Particulate Matter (PM ₁₀)	777	311.95
Total Particulate Matter (TSP)	1289	532.85
Sulfur Dioxide (SO ₂)	3115	1099.05
Volatile Organic Compounds (VOC)	147	58.16

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2016 Actual Emissions
Acetaldehyde	2.64	1.20
Benzene	1.15	0.52
Hydrochloric Acid (HCl)	227	101.92
Hydrofluoric Acid (HF)	10.03	4.63
Styrene	5.84	2.64
Toluene	2.87	1.30
Other HAPs	5.03	2.14
Total HAPs	245.57	114.35

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR7	To Prevent and Control Air Pollution from Manufacturing Process Operations
	45CSR7A	Compliance Test Procedures 45CSR7
	45CSR10	To Prevent and Control Air Pollution from the Emission of Sulfur Oxides
	45CSR10A	Testing, Monitoring, Record Keeping, and Reporting Requirements under 45CSR10
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation
	45CSR14	Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
40 C.F.R. Part 61	Asbestos inspection and removal	
40 C.F.R. Part 64	Compliance Assurance Monitoring (CAM)	
40 C.F.R. Part 82, Subpart F	Ozone depleting substances	
State Only:	45CSR4	No objectionable odors.

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 (if any)
R14-0017C	6/14/2012	
R13-2052	5/21/03	

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

Removal of Compliance Order CAIR NOx Ozone Season Trading Program Language

Condition 3.1.9 of the previous permitting action contained language for the retired unit exemption provisions, since Boiler 4 had been shut down, set forth in 45CSR§40.5. This language is not in the new version of the rule; therefore, this condition was removed.

The previous permitting action also contained Compliance Order language for Boiler 4. Condition 4.1.3 of the previous permitting action addresses CAIR NOx ozone season allowance allocations for each of the ozone seasons in years 2009 through 2012 (Compliance Order CO-R40-C-2006-29), and condition 4.1.4 of the previous permitting action addresses CAIR NOx ozone season remaining allowances allocation for the 2012 ozone season (Compliance Order CO-R40-C-2012-3). These ozone seasons have passed, and Boiler 4 was permanently shut down; therefore, these conditions no longer apply and were removed with this permit renewal.

Other Changes

The emission units table was reformatted for clarity and readability.

Additionally, condition 5.3.2. was revised. This condition specified testing frequencies for various pollutants. This condition also included, for informational purposes, a table specifying the subsequent testing frequency and next anticipated test dates for various pollutants. At the time of this renewal, the test dates in the previous renewal have passed making the current language outdated. Therefore, this table was removed from the renewal permit. The current testing frequencies and current next test dates are summarized below:

Pollutant	Testing	Next Test Date
CO	Once/3 years	By May 31, 2020
PM	Once/3 years	By June 2, 2019
HCl	Once/5 years	By June 2, 2021
H ₂ SO ₄	Annual	By September 26, 2017
VOC	Once/5 years	By June 2, 2021
SO ₂	Once/5 years	By June 2, 2021
NO _x	Once/3 years	By May 31, 2020

Except for boilerplate and formatting changes, no additional changes were made with this permit renewal.

Non-Applicability Determinations

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

45CSR33	Acid Rain Provisions and Permits do not apply to WVA Manufacturing LLC – Alloy Facility because it is not considered a Title IV (Acid Rain) Source.
40 C.F.R. §§ 60.40 - 60.46 NSPS Subpart D	Standards of Performance for Fossil-Fuel-fired Steam Generators constructed after August 17, 1971 does not apply because no steam generating units with a heat input above 250 mmBtu/hr that were constructed, reconstructed, or modified after August 17, 1971 exist at this facility.
40 C.F.R. §§ 60.40Da - 60.52Da NSPS Subpart Da	Standards of Performance for Electric Utility Steam Generating Units does not apply because no steam generating units with a heat input above 250 mmBtu/hr that were constructed, reconstructed, or modified after September 18, 1978 exist at this facility.
40 C.F.R. §§ 60.40b - 60.49b NSPS Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units does not apply because no steam generating units with heat input > 100 mmBTU/hr which were constructed, reconstructed, or modified after 6/19/84 are in use.
40 C.F.R. §§ 60.110 - 60.113 NSPS Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids constructed or modified after June 11, 1973 and prior to May 19, 1978 does not apply because petroleum liquids are not stored in vessels with a capacity greater than 40,000 gallons.
40 C.F.R. §§ 60.110a - 60.115a NSPS Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids constructed or modified after May 18, 1978 and prior to July 23, 1984 does not apply because petroleum liquids are not stored in vessels with a capacity greater than 40,000 gallons.
40 C.F.R. §§ 60.110b - 60.117b NSPS Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply because vessels are smaller than 75 m ³ .
40 C.F.R. §§ 60.250 - 60.258 NSPS Subpart Y	Standards of Performance for Coal Preparation Plants do not apply because Alloy Facility coal operation precedes the NSPS Subpart Y applicability date of October 27, 1974.
40 C.F.R. §§ 60.260 - 60.266 NSPS Subpart Z	Standards of Performance for Ferroalloy Production Facilities does not apply because Alloy Facility's modification of Electric Arc Furnace Number 15 in 1997 did not meet 50% of the cost of the furnace to be considered reconstruction.
40 C.F.R. §§ 60.380 - 60.386 NSPS Subpart LL	Standards of Performance for Metallic Mineral Processing do not apply because Alloy Facility operation proceeds the NSPS Subpart LL applicability date of August 24, 1982.
40 C.F.R. §§ 60.670 - 60.676 NSPS Subpart OOO	These sections of 40 C.F.R. Part 60, Subpart OOO, do not apply to Alloy Facility since Alloy Facility does not crush and/or grind nonmetallic minerals.
40 C.F.R. §§ 60.730 - 60.737 NSPS Subpart UUU	Standards of Performance for Calciners and Dryers in Mineral Industries do not apply because silica and ferrosilica are not listed as a mineral processed or produced in a mineral processing plant.
40 C.F.R. §§ 63.1620 - 63.1679 NESHAP Subpart XXX	This facility does not produce either Ferromanganese or Silicomanganese products and is, therefore, not subject to any requirements under 40 CFR Part 63, Subpart XXX. However, Ferromanganese and Silicomanganese products were produced at this facility prior to 1980; therefore, this facility would be subject to the existing source requirements of this subpart if it was to produce these products in the future.
45CSR§10-5.1.	This process is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.
45CSR17	Alloy Facility is subject to 45CSR7 which exempts it from 45CSR17, To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter, as stated in 45CSR§7-10.2.
40 C.F.R. Part 72	Acid Rain Program General Provisions does not apply to Alloy Facility because it is not considered a Title IV (Acid Rain) Source.

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: Wednesday, July 26, 2017
Ending Date: Friday, August 25, 2017

Point of Contact

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

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Division of Air Quality
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Charleston, WV 25304
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478
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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.