

Fact Sheet



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

Permit Number: **R30-03300001-2017**
Application Received: **November 2, 2016**
Plant Identification Number: **03-54-033-00001**
Permittee: **GrafTech Advanced Graphite Materials LLC**
Facility Name: **Anmoore Facility**
Mailing Address: **P.O. Box 120**
Anmoore, WV 26323

Physical Location: Anmoore, Harrison County, West Virginia
UTM Coordinates: 561 km Easting • 4,345 km Northing • Zone 17
Directions: Rt 58, Philippi Pike at Anmoore, WV.

Facility Description

GrafTech's Anmoore facility falls under the SIC code of 3624 for carbon and graphite products. This facility produces specialty carbon and graphite products by forming "green" carbonaceous shapes from raw materials consisting of petroleum coke and coal tar pitch. The "green" products are baked in natural gas fired, high temperature ovens and are then treated with liquid petroleum pitch and baked again prior to being processed into graphite using electrically heated furnaces. The graphite shapes are then purified, machined and processed into varying products which are further processed to enhance their properties prior to shipment. SIC Code: 3624 - Electronic and Other Electrical Equipment & Components – Carbon and Graphite Products.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2015 Actual Emissions
Carbon Monoxide (CO)	2,905.67	548.97

Plantwide Emissions Summary [Tons per Year]

Regulated Pollutants	Potential Emissions	2015 Actual Emissions
Nitrogen Oxides (NO _x)	33.11	28.56
Lead (Pb)	<0.01	<0.01
Particulate Matter (PM _{2.5})	17.24	8.44
Particulate Matter (PM ₁₀)	196.10	24.95
Total Particulate Matter (TSP)	344.71	45.09
Sulfur Dioxide (SO ₂)	134.27	54.32
Volatile Organic Compounds (VOC)	44.22	13.47

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2015 Actual Emissions
POM	6.30	1.67
Phenol	1.44	0.0
Formaldehyde	0.34	<0.01
HAP metals from combustion of NG and Fuel Oil	0.06	<0.01
HAP VOCs	3.14	<0.01
Total HAPs	9.5	1.67

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

Title V Program Applicability Basis

This facility has the potential to emit 2,905.67 TPY of carbon monoxide (CO), 196.10 TPY of particulate matter (PM₁₀), and 134.27 TPY of sulfur dioxide (SO₂). Due to this facility's potential to emit over 100 tons per year of criteria pollutant, GrafTech 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:	45CSR2	To Prevent And Control Particulate Air Pollution from Combustion Of Fuel In Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR7	To Prevent And Control Particulate Matter Air Pollution from Manufacturing Processes And Associated Operations

	45CSR10	To Prevent And Control Air Pollution from The Emission Of Sulfur Oxides
	45CSR11	Standby plans for emergency episodes
	45CSR13	Minor New Source Review Permits for Stationary Sources
	45CSR16	Standards of Performance for New Stationary Sources
	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. 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 64	Compliance Assurance Monitoring
	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 <i>(if any)</i>
R13-0874	09-16-1986	
R13-0893	11-20-1986	
R13-1151	10-26-1989	
R13-1540B	07-11-2005	
R13-1569A	07-20-1999	
R13-1934C	08-13-2013	
R13-2047	06-04-1997	
R13-2058C	06-06-2006	
R13-3039A	10-20-2015	

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

The following sections review the applicable requirements of each source specific section and outlines any changes that were made during the Title V renewal.

Section 1.0 Emission Unit Table

In the previous Title V Permit the capacity of emission unit 241 was listed as both 8,000 and 10,000 gal in different parts of the permit, therefore it was changed to 10,000 gal to be consistent throughout the permit and to match the data in the Title V Renewal application.

Section 4.0 Source-Specific Requirements for Boilers

No changes to the State Rules (45CSR2 and 45CSR10) or Federal Regulation (40 C.F.R. 60 Subpart Dc) since the issuance of the last Title V renewal (R30-03300001-2012). The changes made in R13-3039 and R13-3039A were already incorporated into the Title V permit with the issuance of R30-03300001-2012(SM01) and R30-03300001-2012(SM03). Therefore, no changes were made to this section.

Section 5.0 Source-Specific Requirements for the Bake Process

No changes to the relevant R13 permit (R13-2058C), State Rules (45CSR6 and 45CSR7) or Federal Regulation (40 C.F.R 64) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 6.0 Source-Specific Requirements for the Pitch Impregnation Process

No changes to the State Rules (45CSR7 and 45CSR10) or Federal Regulation (40 C.F.R. 64) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 7.0 Source-Specific Requirements for the Special Products, Rigid Graphite Insulation and Porous Carbon

No changes to the relevant R13 permits (R13-1151, R13-1540B, R13-1569A, and R13-2058C) or State Rules (45CSR7 and 45CSR10) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 8.0 Source-Specific Requirements for Raw Materials Handling Operations

No changes to the relevant R13 permit (R13-2047), State Rule (45CSR7) or Federal Regulation (40 C.F.R 64) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 9.0 Source-Specific Requirements for the Graphite Furnaces and Purification Process

No changes to the State Rule (45CSR7) since the issuance of the last Title V renewal (R30-03300001-2012). The changes made in R13-1934C were already incorporated into the Title V permit with the issuance of R30-03300001-2012(SM02). Therefore, the only changes made to this section were the removal of reserved condition numbers (9.4.1. and 9.4.3) and the renumbering of the remaining conditions.

Section 10.0 Source-Specific Requirements for the Graphite Machining and Materials Handling Process

No changes to the State Rule (45CSR7) or Federal Regulation (40 C.F.R. 64) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 11.0 Source-Specific Requirements for the Shipping and Quality Control Operations

No changes to the State Rule (45CSR7) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Section 12.0 Source-Specific Requirements for the Mill, Mix, and Forming Operations

No changes to the relevant R13 permit (R13-0874), State Rule (45CSR7) or Federal Regulation (40 C.F.R. 64) since the issuance of the last Title V renewal (R30-03300001-2012). Therefore, no changes were made to this section.

Non-Applicability Determinations

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

40CFR60 Subparts K, Ka, Kb – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978; prior to July 23, 1984; or after July 23, 1984 respectively.

Regardless of the construction date these NSPS standards have an applicability threshold of either 40,000 or 20,000 gallons in which GrafTech does not satisfy. The permittee's largest volatile organic liquid tank is 10,000 gallons or less. Therefore, the above referenced NSPS are not applicable to the following tanks permitted herein:

10,000 gallon, Tectyl 779 Bulk Process Oil Tank, constructed in 1988, Emission Point ID (241)
6,000 gallon, Diesel Fuel Storage Tank, constructed in 1985, Emission Point ID (215)
1,000 gallon, Unleaded Gasoline Fuel Storage Tank, constructed 1985, Emission Point ID (216)
500 gallon, Kerosene Fuel Storage Tank, constructed 1985, Emission Point ID (217)

40CFR60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. One of GrafTech's three boilers has the following characteristics:
Natural Gas Fired Boiler, Constructed in 1981, Rated capacity of 11.0 MMBtu/hr, ID (300)
As a result of this boiler being constructed before the corresponding applicability date of June 9, 1989, the boiler listed above was found not to be subject to the above referenced NSPS.

40CFR63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. GrafTech is not a major source of Hazardous Air Pollutants at this time.

40CFR63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial Commercial and Institutional Boilers Area Sources. Gas boilers are listed as being specifically exempt from these area source requirements under §63.11195(e).

40CFR63 Subpart SSSSS – National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing. GrafTech maintains the exemption criteria based on carbon and chromium content within their products. GrafTech is not a major source of HAPs.

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: Friday, April 7, 2017
Ending Date: Monday, May 8, 2017

Point of Contact

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

Robert Mullins
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1243 • 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)

Comments from GrafTech received by e-mail on May 8, 2017

Emission Unit 039 was taken out of service and point sources 039A and 039B were routed to Emission Unit 040. This occurred in April 2013. Emission unit 040 was a replacement installation.

DAQ's Response: Added Emission Units 039A and 039B to Emission Point 040 and removed Emission Point 039. Deleted the Emission Point ID 039 in conditions 5.1.23, 5.1.24, 5.1.25, and 5.4.2. Updated Conditions 5.1.37, 5.2.6, 5.2.8, 5.2.9, 5.2.10, 5.3.3, 5.4.7, and 5.5.2 to reference baghouse 040 instead of 039.

GrafTech submitted other comments which would require changes to various 45CSR13 permit conditions. Since these changes would have to be made to the 45CSR13 permits before they could be made to the Title V permit, they were not addressed in this Title V renewal.