West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05300004-2013**
Application Received: **February 9, 2012**
Plant Identification Number: **053-00004**
Permittee: **Felman Production, Inc.**
Mailing Address: **4442 Graham Station Road, Letart, WV 25253-8701**

Physical Location: New Haven, Mason County, West Virginia
UTM Coordinates: 419.73 Easting • 4312.468 km Northing • Zone 17
Directions: Approximately 4 miles east of New Haven adjacent to US Route 33.

Facility Description

Felman Production, Inc. manufactures manganese, silicon based ferroalloys, and ferrosilicon and is covered by Standard Industrial Classification (SIC) codes 3313 and 3341. The facility consists of three electric submerged arc furnaces, associated sizing equipment and environmental controls. This renewal permit is combined with a significant modification to incorporate additional picking and screening equipment as authorized by R13-2857A.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	**Potential Emissions**	**2011 Actual Emissions**
Carbon Monoxide (CO)	1,147.33	1271.12
Nitrogen Oxides (NO_X)	21.76	21.98
Particulate Matter (PM_{10}) *PM_{10} is a component of TSP.*	276.72	340.15
Total Particulate Matter (TSP)	340.11	511.24
Sulfur Dioxide (SO_2)	1,203.49	533.95
Volatile Organic Compounds (VOC)	879.38	12.05

Hazardous Air Pollutants	Potential Emissions	2011 Actual Emissions
Arsenic	0.0080	0.0114
Cadmium	0.0065	0.0092
Chromium	0.009	0.0060
Manganese	51.37	44.77
Mercury	0.002	0.0001
Nickel	0.259	0.0037
Selenium	0.0504	0.0210

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

The 2011 actual emissions are higher than the potential emissions for CO, NO_x, PM_{10}, TSP, Arsenic, and Cadmium. In 2011, Felman Production, Inc. operated a coke screening circuit and a coke crushing circuit without obtaining a Rule 13 permit. The emissions from these circuits are included in the actual emissions but not in the potential emissions. The crushing and screening circuits have since been removed from the facility.

Title V Program Applicability Basis

This facility has the potential to emit 1,147 tons per year of CO, 277 tons per year of PM_{10}, 1,203 tons per year of SO_2, 879 tons per year of VOCs, and 51 tons per year of Manganese. 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, Felman Production, Inc. 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	PM limits on manufacturing processes
	45CSR10	SO_2 limits
	45CSR11	Standby plans for emergency episodes
	45CSR13	Construction Permits
	45CSR16	Performance Standards for New Stationary Sources
	45CSR30	Operating permit requirement
	45CSR34	Emissions Standards for HAPs
	40 CFR Part 61	Asbestos inspection and removal
	40 CFR Part 82, Subpart F	Ozone depleting substances
	40 CFR Part 60, Suboart Y	Coal Prep and Processing Plants NSPS
	40 CFR Part 60, Subpart IIII	Stationary Compression Ignition Engines NSPS
	40 CFR Part 60, Subpart OOO	Non-metallic Mineral Processing NSPS
	40 CFR Part 63, Subpart XXX	Ferroalloys Production: Ferromanganese and Silico-manganese NESHAPs
	40 CFR Part 63, Subpart ZZZZ	Reciprocating Internal Combustion Engines NESHAPs
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 request any pertinent information such as annual emission inventory reporting is provided in WV Code § 22-5-4(a)(14). 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)*
CO-R7, 13, 16-93-1	4/16/1993	CO-R7-95-13, Civil Action No. 94-C-1084
CO-R7-95-13, Civil Action 94-C-1084	4/20/1995	
CO-R13-E-2012-11	6/12/2012	
R13-2857A	4/30/2012	

Conditions from this facility's Rule 13 permit 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. All other conditions from this facility's Rule 13 permit governing the source's operation and compliance have been incorporated into this Title V permit.

Determinations and Justifications

This is a permit renewal for this facility. This renewal permit is combined with a significant modification to incorporate the changes from NSR Permit R13-2857A. The following changes have occurred since the most recent permit was issued:

Title V Boilerplate changes:

A new Section 1.2 Table was added which lists all the active R13, R14, and/or R19 permits and their date(s) of issuance. The underlying authority for any conditions from R13, R14, and/or R19 permits cite the original permit number in the Title V permit. These changes will eliminate the need to go through the entire Title V permit to change the R13, R14, and/or R19 permit numbers each time an R13, R14, and/or R19 permit is modified. The only required change will be to the Section 1.2 Table.

Conditions 3.1.1. and 3.1.2. were revised because the language in 45CSR§§6-3.1. and 3.2. changed.

Condition 3.1.3. citation was changed because 45CSR15 was repealed and 40 CFR 61 is now incorporated into 45CSR34.

Condition 3.3.1.d. was added.

Conditions 3.5.3. and 3.5.5. were revised to address electronic submittal of the annual certification to the USEPA. The certification shall now only be submitted to the USEPA by e-mail.

Other changes:

The following conditions from the old permit were deleted from the renewal permit:
Conditions 3.6.1. and 3.6.2. have been completed, therefore the requirements were removed.
Condition 4.1.10. required applying for a Rule 13 permit to restart Furnace #9, which has been dismantled.

Conditions 4.3.3. and 4.3.4. required stack tests and stack test plans, which have been completed.

Condition 4.5.1. was added to require reporting of the operating parameters required to be established in Section 4.2.3.b.1.
Conditions 4.6.1. through 4.6.3. in the Compliance Plan Section have been completed and replaced. The condition will now require the permittee to determine the operating parameters required in Section 4.2.3.b.1. and submit a request for a permit modification to incorporate the parameters into the Title V Permit.

Consent Orders - There are two new Consent Orders, CO-R34-E-2011-05 and CO-R13-E-2012-11, due to non-compliance issues. The requirements from CO-R34-E-2011-05 have been completed and it has been terminated. CO-R13-E-2012-11 requires the permittee to submit an application for an NSR permit for the #1 crushing/sizing circuit (Gator triple deck screen). It also limits the operation of the Gator triple-deck screen to a feed rate not to exceed 33 tons per hour and requires monitoring and recordkeeping of the process feed rate to demonstrate ongoing compliance with the throughput limit. The NSR permit application is currently being processed. The equipment is not listed in the Equipment Table, but the operating limits, monitoring, and recordkeeping requirements were incorporated into the Title V permit as Sections 5.1.9. and 5.4.3.

R13-2857A changes and determinations:
The permittee applied for an amendment to R13-2857 and for a significant modification to the Title V permit on December 1, 2011 to add four (4) portable screening (SC-01A, RBSC-01, RBSC-02, BTSC-01) and/or crushing units (RBCR-01), with belts and associated transfer points and one (1) water jig (CR-01B) with associated pre-screening and crushing devices (SC-01B) with belts and associated transfer points. The emissions limits authorized by R13-2857A and the associated monitoring, testing, recordkeeping and reporting requirements have been incorporated in the Title V Permit in Section 6.0.

The significant modification has been combined with this Title V renewal, and the plantwide emissions table has been amended to reflect the following changes:

Pollutant	Emissions Change (tpy)
Carbon Monoxide (CO)	1.08
Nitrogen Oxides (NO_X)	5.07
Particulate Matter (PM_{10})	11.45
Total Particulate Matter (TSP)	23.80
Sulfur Dioxide (SO_2)	0.33
Volatile Organic Compounds (VOC)	0.39

40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation and Processing Plants. Feedstock into the plant may include coal, therefore the new screens, crushers and belts that handle feedstock are subject to Subpart Y. These units include Conveyors BC1A, BC2A, BC1C, BC2C, BC1D, and BC2D; Screens SC-01A, BTSC-01, RBSC-01, RBSC-02; and Crusher CR-01B. The requirements are listed in Condition 6.1.18.a. and testing requirements to demonstrate compliance are listed in 6.2.3. and 6.2.4. The requirements for the open storage piles (OCS1, OCS2, OCS3), which includes the equipment used in the loading, unloading, and conveying operations, are listed in Condition 6.1.18.b. The fugitive coal dust emissions control plan must be submitted to the Director prior to startup of the new, reconstructed, or modified open storage pile and is listed in Condition 6.4.3.

40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Both the Bivitec (BTSC-01) and Barge (SC-01A) screener engines were manufactured before July 11, 2005 and are therefore exempt from the rule. The Rebel engine (RBSC-01, RBSC-02, RBCR-

01), a Deutz BF 6 M 2012 C, was manufactured in 2006. Because this is a non emergency pre-2007 engine with a per cylinder displacement of less than 10 Liters with a maximum power of between 75 and 130 kw, the main requirement of the rule is that the engine meet a NO_x emission limit of 6.9 g/hp-hr and requires the operator to use diesel fuel which meets the requirements of 40 CFR §80.510(b).
40 CFR §60.4211(b)(1) allows the owner to demonstrate compliance with this emission limit by using an engine certified according to 40 CFR 89. Deutz's website contains a copy of USEPAs certification letter for this family of engine. A copy of the letter can be found at:
http://www.deutzamericas.com/deutznew/products/emissions/2006/6DZXL05.7033.pdf

40 CFR 63 Subpart XXX - National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese. The new crushing and screening equipment and associated fugitive dust sources are subject to the MACT. The crushers and screens are subject to a limitation of 0.022 gr/dscf. In order to determine compliance with the particulate matter concentration limit, the permittee must perform testing using Method 5 or 5D, as applicable as outlined in 40 CFR §63.1656.

40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The Bivitec (BTSC-01) and barge screener (SC-01A) engines were manufactured in 1993 and have a horse power rating of 250 hp. They are classified in Subpart ZZZZ as existing, non-emergency compression ignition engines between 100 and 300 hp. The main requirement of the rule applicable to these engines is the limit of CO in the exhaust to less than or equal to 230 ppmvd at 15% O_2. In order to determine compliance with this requirement the permittee must perform an initial compliance test in accordance with 40 CFR §63.6612.

The Rebel engine is 200 hp and has a manufacture date of 2006 and is classified as a new, non-emergency engine less than 500 hp. In order to comply with the rule the engine must meet the standards of 40 CFR 60 Subpart IIII as specified in 40 CFR §63.6590(c)(7).

There were no other existing internal combustion engines at the facility.

Non-Applicability Determinations

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

Consent Orders - Consent Orders CO-R34-E-2011-05, CO-R7-E-2004-13, MM-06-001, Amendment to MM-06-001, and CO-R34-E-2008-12 have been terminated upon completion of their requirements. Conditions from those Consent Orders, including 4.5.1. through 4.5.4., have been removed from the permit.

40 CFR Part 60, subpart K, Ka, and Kb - The facility has three above ground storage tanks with capacities less than 19,813 gallons.

40 CFR Part 60, subpart Z - This NSPS applies to facilities that commence construction or modification after October 21, 1974. Electric Arc Furnaces No. 2 and No. 5, were installed in 1966, and in January, 1974, respectively. Electric Arc Furnace No. 7 commenced construction in March 1974 when the owner or operator entered into contractual obligations.

40 CFR 64 - Compliance Assurance Monitoring (CAM). The emissions controls for the new equipment consist of full and partial enclosures. Enclosures do not meet the definition of a control device in accordance with 40 CFR § 64.1, therefore CAM is not applicable to the new equipment. It was determined during the initial permit review and subsequent modifications that CAM was not applicable to the rest of the facility.

Greenhouse Gas Permitting - This is a renewal Title V permit. The significant modification increases CO_2 equivalent by 189 tons per year and does not trigger a PSD permit. Therefore, there are no applicable GHG requirements.

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: February 8, 2013
Ending Date: March 11, 2013

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

Bobbie Scroggie
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

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.

Point of Contact

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