

Fact Sheet



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

Permit Number: **R30-05300004-2007**
Application Received: **April 24, 2006**
Plant Identification Number: **053-00004**
Permittee: **Felman Production, Inc.**
Mailing Address: **Route 3 Box 127 Letart, WV 25253**

Physical Location: New Haven, Mason County, West Virginia
UTM Coordinates: 419.73 km 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 and silicon based ferroalloys and is covered by Standard Industrial Classification (SIC) codes 3313 and 3341. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year and consists of three electric submerged arc furnaces, associated sizing equipment and environmental controls.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	1999* Actual Emissions
Carbon Monoxide (CO)	0.21	0
Nitrogen Oxides (NO _x)	16.69	6
Particulate Matter (PM ₁₀)	264.31	96.3
Total Particulate Matter (TSP)	316.31	96.3
Sulfur Dioxide (SO ₂)	1203.16	829.4
Volatile Organic Compounds (VOC)	878.99	189.8

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	1999* Actual Emissions
Arsenic	0.0017	0.0005
Cadmium	0.0005	0.005
Chromium	0.009	0.11
Manganese	51.37	0.3
Mercury	0.002	0.014
Nickel	0.0259	0.067
Selenium	0.0504	0.0005

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

* This facility transferred ownership in 2006 and has operated only intermittently since 1999, therefore the last Certified Emission Statement was submitted in 1999.

Title V Program Applicability Basis

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.
	45CSR30	Operating permit requirement.
	40 CFR Part 61	Asbestos inspection and removal
	40 CFR Part 82, Subpart F	Ozone depleting substances
	40 CFR Part 63, Subpart XXX	NESHAPs for Ferroalloys Production: Ferromanganese and Silicomanganese
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft 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 CFR Part 60 (NPS), 40 CFR Part 61 (NESHAPs), and 40 CFR Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 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 11-8-90	11/8/1990	CO-R7, 13, 16-91-4
CO-R7, 13, 16-91-4	1/22/1991	CO-R7, 13, 16-93-1
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-R7-E-2004-13	9/28/2004	
MM-06-001	1/24/2006	Amendment to MM-06-001
Amendment to MM-06-01	3/23/2006	

Determinations and Justifications

45CSR7 - 45CSR§7-3.1 limits the Electric Arc Furnaces to 20% opacity, except for smoke and/or PM which is less than 40% opacity for any period or periods aggregating no more than 5 minutes in any 60 minute period.

The Electric Arc Furnaces, Crushing Systems, and Product Casting operations are exempt from the PM weight based limit in 45CSR§7-4.1. in accordance with 45CSR§7-4.7.a.

Felman Production, Inc. has deemed that the Stir Station and Plunge Station will not be used, therefore these sources, and their requirements were not included in the Title V Permit.

The Ladle Burners combust No. 2 fuel oil to preheat the ladles before the alloy is poured into them. They are not considered to be indirect heat exchangers subject to Rule 2 but manufacturing source operations subject to Rule 7. The PM emissions from the Ladle Burners are from the combustion of No. 2 fuel oil. According to AP-42 emission factor Table 1.3-1, PM is emitted at a rate of 2 lbs/1000 gallons. At the design capacity of 40 gallons per hour, the PM emission rate calculates to be 0.08 lbs/hr. Therefore, this source is exempt from the PM weight based limits of Section 4.1. in accordance with Section 10.5, which exempts sources of emissions that have a PTE of less than 1 lb/hr.

The monitoring, testing, recordkeeping and reporting requirements in the Title V Permit were established in CO-R7-95-13, CO-R7-E-2004-13, MM-06-001, and 40 CFR part 63, subpart XXX; and were deemed to be sufficient for Title V purposes.

45CSR10 - The furnaces and manufacturing processes are subject to Section 4 (SO₂ concentration limit), and Section 8 (testing, monitoring, reporting and recordkeeping). 45CSR§10-8.2. requires the company to monitor compliance as set forth in an approved monitoring plan which is attached to the permit as Appendix B.

Consent Orders - There are nine Consent Orders and one Consent Judgement for the facility. The conditions and their determinations are compiled in the following table. CO-R7-95-13 included the requirements from the three previous Consent Orders, making it the most stringent consent order, therefore only the requirements from CO-R7-95-13 were included in the permit. There is one exception, CO-R7-95-13, Condition 7.a.10.A. required the permittee to continuously monitor spray nozzle water pressures for the slag crushing systems, however CO-R7, 13, 16-93-1, Condition IV.9. required the permittee to repair or replace any failed nozzles, therefore both conditions were streamlined and included in the permit.

Consent Order	Condition	Determination
CO 5-16-1989	Obtain a Rule 13 permit for the construction of No. 9 Furnace	Not applicable - Furnace No. 9 has been dismantled.
CO 11-8-1990	Repairs/replacement of equipment to control PM emissions. Testing to demonstrate compliance	Completed.
	Discontinue open burning	Carried over into CO-R7, 13, 16-91-4; then CO-R7, 13, 16-93-1; then CO-R7-95-13; then into Title V Permit.
	Record by-pass cap usage and ductwork fan motor winding temperatures	
	Replace sodenburg paste as ladle refractory lining	
	Maintain a water truck to spray plant premises and access roads	
CO-R7, 13, 16-91-4	Amended 11/8/1990 Consent Order because the No. 9 furnace was shutdown and would not be restarted before the compliance dates established	Not applicable - Furnace No. 9 has been dismantled.
CO-R7, 13, 16-93-1	Repairs/replacement of equipment. Testing to demonstrate compliance	Completed
	Institute preventative maintenance program for air pollution control systems	Carried over into CO-R7-95-13; then into Title V Permit.
	Monitoring such as VE readings, hours of operation and water usage for water truck and slag crushing, power input to each furnace, pressure drop across furnace baghouse fan	
	Repair or replace failed spray nozzles.	Carried over into Title V Permit.
CO-R7-95-13 Civil Action 94-C-1084	Modifications/repairs to equipment. Testing to demonstrate compliance. Environmental Audit report required.	Completed
	Institute General Operating Provision	Carried over into Title V Permit
	Maintain record of representative fan performance curve prepared for a specific temperature for each furnace baghouse fan.	
	Maintain a certified log of the time, duration and furnace number of all "blowing tap holes," "poling," and "oxygen lancing" at each furnace.	
	Notification for air pollution control equipment failure within 24 hours	
Civil Action 02-C-3142 1/21/2003	Repairs to baghouses and ductwork	Completed by Felman
Civil Action 02-C-3142 10/20/2003	Penalties	No conditions to be carried over into Title V Permit

Consent Order	Condition	Determination
CO-R7-E-2004-13	Repairs to equipment. Submit Title V Permit application	Completed.
	48 hours notification before restarting any furnace.	Carried over into Title V Permit
	Performance testing and testing reports.	
	Casting station shall be operational and used. Comply with MACT standard (subpart XXX). Obtain a permit for the No. 9 Furnace.	
	Obtain a permit for the jig plant	Not applicable - source removed.
MM-06-001	Repairs to equipment. Submit Title V Permit application	Completed.
	5 days notification before initial operation of any furnace. Performance testing and testing reports.	Carried over into Title V Permit.
Amendment to MM-06-001	Amended MM-06-001 to submit Title V Permit application within 90 days	Completed.

Consent Order CO-R7-E-2004-13, and subsequently MM-06-001, required Felman to submit a stack testing plan within 45 days of initiating furnace operations. Also required was stack testing for PM, NO_x, SO_x, VOCs and CO within 180 days of initiating furnace operations. Furnace No. 7 was started in August 2006, however no stack testing plan has been submitted and the stack testing has not been completed, therefore a compliance plan was established to require the permittee to meet these requirements. Furnaces No. 2 and 5 have been started and are also subject to the compliance plan if they are in operation as of the permit effective date.

40 CFR Part 63, Subpart XXX - all Electric Arc Furnaces, the crushing and screening equipment, and fugitive dust sources are subject to the Ferroalloys Production MACT. The Electric Arc Furnaces and Crushing Systems are exempt from the PM weight based limit in 45CSR§7-4.1., but are subject to the PM emission limits established in 40 CFR §63.1652(b). 40 CFR § 63.1658(f) requires notifications of compliance on the 60th day, however 40 CFR §63.1659(a)(1) allows the dates to be changed to be consistent with the state's schedule, therefore the requirement was amended to allow the permittee to note compliance status in the semi-annual report required by 45CSR30. The fugitive dust control plan required in 40 CFR § 63.1654(a)(1) has not been submitted, therefore a compliance plan was established for this requirement. The initial notification required by 40 CFR § 63.1658(a)(2) has not been submitted, therefore a compliance plan was established for this requirement. The requirements to conduct stack testing of the furnaces have not been completed, therefore a compliance plan was established in the Title V Permit.

Streamlining

45CSR6 - The requirement to prevent open burning is more stringent in CO-R7-95-13, Condition 7.a.11.A. than in 45CSR6, therefore 45CSR§6-3.1. was streamlined with the requirement from CO-R7-95-13.

45CSR7, Consent Orders, NSPS, and MACT - The opacity limit for the Electric Arc Furnaces in 45CSR§7-3.1 is more stringent than the opacity limit in 40 CFR §63.1653(a), therefore the MACT limit was streamlined with the Rule 7 limit. 45CSR§7-5.3 exempts existing ferroalloy electric submerged arc furnaces from PM limits during blowing taphole events, poling and oxygen lancing operations. 40 CFR §63.1653(b) exempts blowing taps, poling and oxygen lancing of the tap hole; and burndowns associated with electrode measurements; and maintenance activities associated with submerged arc furnaces and casting operations. Because 45CSR7 is more stringent, the MACT was streamlined with Rule 7.

CO-R7-95-13, Condition 7.b.1.A. requires visible emission tests once per shift during daylight hours. This is more frequent than the daily visible emission tests in 40 CFR § 63.1657(a), therefore the MACT requirement was streamlined with the CO-R7-95-13 requirement.

CO-R7-95-13, Condition 7.b.4. requires the permittee to continuously monitor the pressure drop across each furnace baghouse fan. This is more stringent than the daily baghouse pressure checks required by 40 CFR § 63.1657(a)(2)(i), therefore the MACT requirement was streamlined with the CO-R7-95-13 requirement for the furnace baghouses. However, the MACT requires the daily baghouse pressure checks for the crushing and screening baghouses, also, therefore the MACT requirement was included in the Title V Permit for the crushing and screening operations.

40 CFR §§63.1658(d) and (e) requires the permittee to submit a notification of testing 30 days in advance, however CO-R7-E-2004-13, Condition III.4. requires the permittee to submit a notification of testing 60 days in advance, therefore the MACT requirement was streamlined with the CO-R7-E2004-13 requirement. 40 CFR § 63.7 requires the test to be conducted within 180 days of startup, however CO-R7-E-2004-13, Condition III.4. requires the test to be conducted within 90 days of startup, therefore the MACT requirement was streamlined with the CO-R7-E2004-13 requirement. The results must be reported within 60 days of test completion.

CO MM-06-001 requires the permittee to conduct an initial test for PM, NO_x, SO_x, VOCs and CO. The permittee must submit a stack test plan within 45 days of startup and must conduct the stack tests within 180 days of startup. This test may run concurrently with the test required by CO-R7-E-2004-13 and the MACT.

Non-Applicability Determinations

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

R13-1110 authorized the construction of Furnace No. 9, but the furnace has since been dismantled, therefore the conditions of this permit were not included in the Title V Permit.

Consent Orders - CO-R7-95-13, Condition 7.a.5.A. required the permittee to maintain the pressure drop monitors on the MGO baghouse which controls the emissions from the Stir Station and Plunge Station, however the permittee has deemed that these sources will not be used, therefore this condition was not included in the Title V Permit. CO-R7-E-2004-13 required the permittee to obtain a permit for the jig plant. This source is no longer at the facility, thus this condition was not included in the Title V Permit. Amendment to MM-06-001 amended Consent Order MM-06-001 by extending the deadline to submit a completed Title V Permit application. The Title V Permit application has been submitted, therefore this condition was not included in the Title V 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 - 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 Electric Arc Furnaces are subject to SO₂ limits in accordance with 45CSR10, however there are no control devices used to comply with the limit, thus the Furnaces are not pollutant specific emissions units (PSEUs) for SO₂ in accordance with 40 CFR §64.2(a)(2). The Electric Arc Furnaces, the crushing and screening equipment, and fugitive dust sources are subject to the Ferroalloys Production MACT which regulates PM emissions, therefore these sources are not subject to CAM for PM in accordance with 40 CFR §64.2(b)(1)(i).

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: June 23, 2007

Ending Date: July 23, 2007

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

Jay Fedczak
Title V Program Manager
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

Jay Fedczak
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Response to Comments

No comments received.