

Fact Sheet



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

Permit Number: **R30-05300004-2023**

Application Received: **December 20, 2022**

Plant Identification Number: **03-54-053-00004**

Permittee: **Felman Production, LLC**

Mailing Address: **4442 Graham Station Road, Letart, WV 25253-8701**

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, LLC manufactures manganese, silicon-based ferroalloys, and ferrosilicon 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]		
Regulated Pollutants	Potential Emissions	2022 Actual Emissions
Carbon Monoxide (CO)	1639	397.13
Nitrogen Oxides (NO _x)	360	59.44
Particulate Matter (PM _{2.5})	514	46.90
Particulate Matter (PM ₁₀)	787	78.41
Total Particulate Matter (TSP)	948	141.14
Sulfur Dioxide (SO ₂)	342	82.25
Volatile Organic Compounds (VOC)	9.64	5.92

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2022 Actual Emissions
Manganese	157	0.13
Total of all HAPs < 10 tpy each	9.07	2.14

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

Title V Program Applicability Basis

This facility has the potential to emit 1639 tons per year of CO; 360 tons per year of NO_x; 787 tons per year of PM₁₀; 342 tons per year of SO₂; and 157 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, 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 | Control Of Air Pollution From Combustion Of Refuse |
| 45CSR7 | To Prevent And Control Particulate Matter Air Pollution From Manufacturing Processes And Associated Operations |
| 45CSR10 | Control of Sulfur Dioxide Emissions from Indirect Heat Exchangers. |
| 45CSR11 | Prevention Of Air Pollution Emergency Episodes |
| 45CSR13 | Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation |

45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
45CSR30	Requirements For Operating Permits
45CSR34	Emission Standards For Hazardous Air Pollutants
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
40 C.F.R. 60, Subpart Y	Standards of Performance for Coal Preparation Plants
40 C.F.R. 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants
40 C.F.R. 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. Part 61, Subpart M	National Emission Standard For Asbestos
40 C.F.R. 63, Subpart XXX	National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese
40 C.F.R. 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:

45CSR4	To Prevent And Control The Discharge Of Air Pollutants Into The Open Air Which Causes Or Contributes To An Objectionable Odor Or Odors
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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)
CO-R7, 13, 16-93-1	April 16, 1993	CO-R7-95-13, Civil Action No. 94-C-1084
CO-R7-95-13, Civil Action 94-C-1084	April 20, 1995	
R13-2857G	February 28, 2023	
R13-3217A	June 19, 2019	
G60-D105	October 1, 2019	

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

This is a renewal of the Title V permit which was issued on July 10, 2018 and modified on January 5, 2021 (SM01) and April 20, 2021 (MM02 & MM03). Unless otherwise noted, the terminology “current permit” or “CP” means Title V Operating Permit R30-05300004-2018 (MM02 & MM03).

This permit renewal includes the changes associated with R30-05300004-2018 (MM04) application received on September 2, 2022 which incorporates the revisions in the R13-2857G Modification Permit to restart Furnace No. 7. Most of the applicable requirements from R13-2857G associated with MM04 are already contained in the current Title V permit and therefore only the COA was revised. Any new applicable requirements from R13-2857G, have been added in the appropriate sections of the Title V renewal permit. See the discussion below.

The change of potential emissions associated with MM04 are as follows:

Pollutant	Change in Potential Emissions TPY
Particulate Matter (PM _{2.5})	-10.14
Particulate Matter (PM ₁₀)	-14.97
Particulate Matter (PM)	-15.60
Manganese (Mn)	-3.17
Total HAPs	-3.19

Substantial changes to the most recent version of the current Title V Permit consist of the following:

Note: COA in the following discussions means citation of authority.

1) **Table of Contents** – Added Section 8.0 for the Emergency Water Pump/Generator Engine

2) **Title V Boilerplate changes.**

- **Condition 2.1.3.** – Revised resulting from Rule 30 (45CSR30) revisions.
- **Condition 2.11.4.** – The COA has been corrected.
- **Condition 2.17.** – Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 2.22.1.** – The COA has been updated to remove 45CSR38 which has been repealed.
- **Condition 3.5.3.** – This condition was revised to update the US EPA mailing address.
- **Condition 3.5.4.** – Revised as revised in Rule 30.
- **Condition 3.5.7.** – Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 3.5.8.a.1.** – Deleted and marked as reserved resulting from Rule 30 revisions.
- **Condition 3.5.8.a.2.** – Revised as revised in Rule 30.

3) **Section 1.1. - Emission Units Table**

- Added “Furnace” and “Material Handling” Sections to the existing table and grouped the equipment per the renewal application. Also included additional Emission Unit IDs and Emission Point IDs for these sections in parenthesis per the renewal application.

- Revised the MW design rating for each of the furnaces to match the actual nameplate ratings. The existing ratings were incorrect. There were no physical changes to the furnaces and the TPH design capacities remain unchanged.
- Corrected the design capacity for 009-06 Transfer Points from 28 TPH to 58 TPH to reflect the existing equipment capacities as listed in the renewal application. The information in the existing table in the current permit is incorrect. There were no physical changes to the raw material transfer points or the furnace capacities.
- Deleted the unpaved roads 005-02, 005-03 and 005-06 per the renewal application. These roads for raw materials were duplicative and therefore removed from the table.
- Added “(except No.7 Furnace which is listed above)” to the table section heading for equipment under R13-2857.
- Added “Furnace No. 7 Casting Ops.” under the section for equipment under R13-2857
- Added “Engine” section to the table to add “John Deere 6135HF485 Diesel Emergency Water Pump/Generator”

4) Section 1.2. - Active R13, R14, and R19 Permits Table

- Updated R13-2857E to R13-2857G
- Added G60-D105

5) Section 3.0

- Revised the COA in conditions 3.1.9., 3.1.10., 3.1.15., 3.1.16., 3.2.1., 3.2.2., 3.2.3., 3.3.2., 3.4.1., 3.4.5. and 3.5.13. to add the applicable requirement citations from R13-2857G in conjunction with MM04.
- Conditions 3.2.1. and 3.2.2. – In addition to revising the COA as mentioned above, a note has been added to identify that the requirements from R13-2857G (which is state and federally enforceable) applicable to baghouse 7 (BH7) are both state and federally enforceable whereas the existing requirements for the other baghouses are state-enforceable only. The existing requirements are applicable through a state- enforceable only consent order.
- Condition 3.3.2. – In addition to revising the COA as mentioned above, 3.3.2.b.10. has been updated to match the revised language of 40 CFR §63.1625(b)(10).
- Condition 3.4.1. – In addition to revising the COA as mentioned above, condition 4.2.1. of G60-D has also been added to the COA.
- Conditions 3.5.14. through 3.5.16. – These permit conditions have been added to include new applicable requirements from R13-2857G in conjunction with MM04.

6) Section 4.0

- Revised the COA in conditions 4.1.1., 4.1.8., and 4.2.2. to add the applicable requirement citations from R13-2857G in conjunction with MM04.
- Condition 4.2.2. – In addition to revising the COA as mentioned above, a note has been added to identify that the requirements from R13-2857G (which is state and federally enforceable) applicable to Furnace No. 7 are both state and federally enforceable whereas the existing requirements for Furnaces No. 2 and No. 5 are state-enforceable only. The existing requirements are applicable through a state- enforceable only consent order. Also, deleted the streamlining sentence “*Compliance with this limit shall demonstrate compliance with the less stringent limitation of 40 CFR §63.1657(a)(2)(i).*” since pursuant to 40 CFR §63.1621(b), §63.1657 is no longer applicable to the facility.

- Conditions 4.1.9. through 4.1.12. – These permit conditions have been added to include new applicable requirements from R13-2857G in conjunction with MM04.
- Condition 4.4.5. – This permit condition has been added to include new applicable requirements from R13-2857G in conjunction with MM04.

7) Section 5.0

- Section Title - Added emission point ID “001-03” to the title for Furnace No. 7 casting operations requirements contained in R13-2857G.
- Condition 5.1.1. - Revised the COA to add the applicable requirement citations from R13-2857G in conjunction with MM04.
- Condition 5.1.3. – Deleted “009-03” and “009-04” in the parenthesis after the COA. These emission units were previously removed from the facility and were overlooked for deletion from the permit during the last renewal and subsequent revisions.
- Conditions 5.1.8. through 5.1.9. – These permit conditions have been added to include new applicable requirements from R13-2857G in conjunction with MM04.

8) Section 6.0

- Section Title - Revised the title to show emission point IDs instead of emission unit IDs. Also added emission point ID “001-03” to the section title for Furnace No. 7 control equipment requirements contained in R13-2857G.
- Conditions 6.1.4., 6.1.11., 6.1.13., 6.1.14., 6.1.15., 6.1.18., 6.1.19., 6.3.5., 6.3.6. and 6.3.7. in the current permit are marked as “Reserved” resulting from previous permit revisions. The “Reserved” conditions have been deleted in the renewal permit and the subsequent conditions have been renumbered. Any references in existing permit conditions have been revised to match the new permit condition numbering.
- Revised the COA in conditions 6.1.11., 6.4.1. and 6.4.2. (6.3.1. and 6.3.2. CP) to add the applicable requirement citations from R13-2857G in conjunction with MM04.

9) Section 7.0

- Condition 7.1.3. in the current permit is marked as “Reserved” resulting from a previous permit revision. The “Reserved” condition has been deleted in the renewal permit and the subsequent conditions have been renumbered. Any references in existing permit conditions have been revised to match the new permit condition numbering.
- Conditions 7.1.10. (7.1.11. CP) and 7.4.7.a.3. (7.3.7.a.3. CP) – updated the language to match the revised language in 40 CFR 60 Subpart IIII for the crusher engine.

10) Section 8.0

- Section 8.0 has been added to the renewal permit to add the applicable requirements from General Permit G60-D under general permit registration G60-D105 for a diesel emergency water pump with built-in generator (EG-1). The general permit registration was issued on October 1, 2019 and not previously integrated into the Title V permit. In addition to the G60-D requirements, the applicable requirements of 40 CFR 63 Subpart ZZZZ for emergency engines have been incorporated into the permit.

11) Appendix B – Updated the Rule 10 Monitoring Plan with the approved revised plan.

40 CFR 63 Subpart XXX - *National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese.*

All affected sources at Felman commenced construction before June 30, 2015, including Furnace No. 7, and therefore the provisions of 40 CFR §§63.1620 through 63.1629 are applicable. The MACT requirements applicable to Furnace No. 7 are already included in the current Title V permit. Since the MACT requirements applicable to Furnace No.7 and the associated casting operations have been added in R13-2857G, the only changes to the renewal permit were made in the COA to include the R13-2857 citations with the exception of condition 3.3.2.b.10. which has been updated to match the revised language of 40 CFR §63.1625(b)(10). The facility does not have metal oxygen refining or wet scrubbers. Therefore, these sections of the MACT were not included in the permit.

40 C.F.R. 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.*

Except for revisions to conditions 7.1.10. (7.1.11. CP) and 7.4.7.a.3. (7.3.7.a.3. CP) updating the language to match the revised language in Subpart IIII, there were no changes in the requirements associated with the crusher (CR1-M) engine.

The diesel engine for the emergency water pump with built-in generator (EG-1) is a 600 HP John Deere 6135HF485 engine, manufactured in 2004 and installed in the same year. It was installed for the purpose of producing power for an emergency pump at pump-house #2 for Electric Arc Furnace No. 2. Since EG-1 commenced construction before July 11, 2005, pursuant to 40 CFR §60.4200(a)(2), the engine is not subject to Subpart IIII.

40 C.F.R. 63, Subpart ZZZZ - *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.*

The 600 HP diesel engine for the emergency water pump with built-in generator (EG-1) is located at a major source of HAP emissions and commenced construction after December 19, 2002 and is therefore considered a new stationary RICE under this subpart. EG-1 meets the criteria in 40 CFR §63.6590(b)(1)(i) (i.e., “*The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.*”). Pursuant to 40 CFR §63.6590(b)(1), EG-1 does not have to meet the requirements of this subpart and of 40 CFR 63 Subpart A except for the initial notification requirements of 40 CFR §63.6645(f). However, in order for the engine to be considered an emergency stationary RICE under this subpart, it must meet the emergency stationary RICE requirements of 40CFR §63.6640(f). Therefore, the §63.6640(f) requirements have been included in Section 8.0 of the renewal permit.

Non-Applicability Determinations

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

- a. **40 CFR Part 60, subpart K, Ka, and Kb** - The facility has three above ground storage tanks with capacities less than 19,813 gallons.
- b. **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.
- c. **40 CFR 64** – The Electric Arc Furnaces, the crushing and screening equipment, and fugitive dust sources are subject to the Ferroalloys Production MACT (40 CFR 63 Subpart XXX) which regulates PM emissions, therefore these sources are not subject to CAM for PM in accordance with 40 CFR §64.2(b)(1)(i). The Electric Arc Furnaces are subject to SO₂ limits in accordance with 45CSR10 and Furnace No.7 is also subject to CO, NO_x, SO₂, VOC, Cr, Pb, Mn, P, PAHs, and total HAPs emission limits under R13-2857G. However, there are no control devices used to comply with these limits, thus the Furnaces are not pollutant specific

emissions units (PSEUs) for any of these pollutants in accordance with 40 CFR §64.2(a)(2). There have been no changes at the facility that triggered CAM applicability.

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: October 3, 2023

Ending Date: November 2, 2023

Point of Contact

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

Frederick Tipane
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/414-1910
frederick.tipane@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.