



west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-3217
Plant ID No.: 053-00004
Applicant: Felman Production, Inc.
Facility Name: Letart Facility
Location: Mason County
NAICS Code: 331112, 331492
Application Type: Modification
Received Date: October 20, 2014
Engineer Assigned: Steven R. Pursley, PE
Fee Amount: \$4,500.00
Date Received: October 21, 2014
Complete Date: November 19, 2014
Due Date: February 18, 2015
Applicant Ad Date: October 28, 2014
Newspaper: *Point Pleasant Register*
UTM's: Easting: 419.73 km Northing: 4,312.468 km Zone: 17
Description: Replacing temporary permit R13-3073T with a permanent permit.

DESCRIPTION OF PROCESS

Felman Production LLC proposes to install a crushing and screening system. An endloader will load remelt, slag or silicomanganese to the hopper/feeder. Material will then pass through a horizontal impact crusher where it will be treated with a water spray. Material will pass to the sizing screen where ½" material will eject off one side and 1" material will eject off the opposite side. Material larger than 1" will be fed back through the system via the top deck belt conveyor then on to the oversized material recirculation belt conveyor then to the impact crusher for reprocessing. Processed material will eject through the bottom deck belt conveyor. Material will be stockpiled for end loaders to load into trucks.

SITE INSPECTION

No site inspection was performed for this permit. However, the writer is familiar with the facility having visited it multiple times. The facility is located in New Haven, West Virginia, in an area that is a mix of residential, commercial and industrial. To get to the facility from Charleston take I-77 north to Ripley (exit 138). At the stop light at the bottom of the off ramp turn left on State Route 62 (old Route 33) and proceed approximately 8.8 miles to the intersection of State Route 2. Then, turn left and proceed on State Route 2/62 approximately 3.1 miles. At the top of the hill veer right on State Route 62. Proceed approximately 9.6 miles and the facility is on the left (offices and parking on the right).

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

All emissions are based on AP-42. Crushing and screening emissions are based on Table 11.24-2 (emission factors for metallic minerals processing) since no emission factors for crushing and screening are given in the ferroalloy section (12.4). Transfer point emissions are based on Equation (1) in section 13.2.4.3. Maximum hourly TP emissions are based on a worst case scenario of handling Silicomanganese while annual emissions are based on the throughput limits (for each type of material) that will be in the permit.

It should be noted that although emissions from the engine that powers the crusher and screen and drives the traktor were included in previous permits issued to Felman, they are NOT included in this summary. This is because in the writers opinion, the engines clearly meet the definition of non-road / mobile internal combustion engines in 40 CFR 60 Subpart IIII (which references 40 CFR 1068.30).

PARTICULATE EMISSIONS

	PM		PM ₁₀		PM _{2.5}	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Screen	20.00	3.58	9.46	1.69	2.98	0.54
Crusher	20.00	3.58	9.46	1.69	2.98	0.54
Transfer Points	0.82	0.15	0.39	0.07	0.12	0.02
Total	40.82	7.31	19.31	3.45	6.08	1.1

REGULATORY APPLICABILITY

The following state and federal regulations apply to the facility:

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STATE RULES

45CSR7 To Prevent and Control Particulate Matter Air Pollution From Manufacturing Processes and Associated Operations

The main requirement of 45CSR7 is the process weight rate based PM stack emission rate in section 4 of the rule. As can be see in the table below the sources meet this requirement.

	Permit Limit (lb/hr)	Rule 7 Limit (lb/hr)
Screen	40	79
Crusher	40	79

The facility is also subject to a twenty (20) percent opacity limit on all process source operations and must have a plan to minimize fugitive emissions. Felman proposes to meet these requirements through the use of water sprays and enclosures.

The facility is also subject to the fugitive particulate matter control systems requirement of section 5.1 of 45CSR7.

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).

Because uncontrolled PM emissions from the modification exceed 6 pounds per hour and 10 tons per year of PM the facility is required to submit a modification permit under 45CSR13. Therefore, the applicant was required to place a class I legal ad per 45CSR§13-11.2.a. The affidavit of publication for said ad was received on October 24, 2014.

45CSR30 Requirements for Operating Permits

The facility is an existing major source under 45CSR30 with an existing Title V permit. Changes authorized by the permit must also be incorporated into the facility's Title V operating permit.

FEDERAL RULES

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

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The crushing and screening equipment and associated fugitive dust sources are subject to 40 CFR 63 Subpart XXX. 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, as outlined in §63.1656.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

The main pollutant covered by this permit is particulate matter. However, some portion of that particulate matter may consist of manganese compounds. Since the facility is already a major source of HAPs subject to 40 CFR 63 Subpart XXX requirements are already in place (as can be seen under the "Regulatory Applicability" section of this document) to limit emissions of these compounds.

AIR QUALITY IMPACT ANALYSIS

Because this is a minor modification as defined in 45CSR14 no modeling was performed.

MONITORING OF OPERATIONS

The permittee shall monitor and record the following:

- * The amount of remelt, slag, and silicomanganese through the crusher and screen.

RECOMMENDATION TO DIRECTOR

Information supplied in the application indicates that compliance with all applicable regulations will be achieved. Therefore it is the recommendation of the writer that permit R13-3217 for the modification of a ferro alloy facility near Letart, Mason County, be granted to Felman Production, Inc.

Steven R. Pursley, PE
Engineer

March 12, 2015

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