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RESULTS
OF
VISIBLE EMISSION COMPLIANCE TESTING
FOR
HOLZ SAND AND GRAVEL, L.L.C.
BAD AXE FACILITY
NONMETTALIC MINERAL CRUSHING
AND
PROCESSING EQUIPMENT

HOLZ SAND AND GRAVEL, L.L.C.

Bad Axe, Huron County, Michigan
Project No. 1406008

Test Date: July 22, 2014

Report Date: August 25, 2014

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1.0 INTRODUCTION

Holz Sand and Gravel, L.L.C. (Holz Sand and Gravel) operates the Bad Axe Facility, a nonmetallic mineral processing facility located in Bad Axe, Huron County.

Holz Sand and Gravel was issued Permit To Install (PTI) No.187-13 by the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) on December 17, 2013 allowing for the operation of an Eagle 1200 impact crusher (crusher), Eagle 1200 screener (screen), three (3) conveyors (25, 45, and 60) and all associated transfer points at the Bad Axe Facility under PTI No. 187-13.

PTI No. 187-13 requires that visible emissions (VE) testing be performed in accordance with federal reference test methods as required by New Source Performance Standards (NSPS), 40 CFR, Part 60, Subparts A and OOO.

Mr. Robert Bingham of Derenzo and Associates performed the VE testing for the (crusher), (screen) and for (25), (45), and (65) on July 22, 2014. Mr. Bill Holz, Bad Axe Facility site supervisor coordinated the field work and was present on-site for the beginning of the VE testing.

2.0 PROCESS DESCRIPTION

The concrete is crushed, screened, and placed into different storage piles depending on the finished size of the aggregate. Finished concrete aggregate is loaded into customer haul trucks and transferred off-site for use in construction or manufacturing applications.

Appendix C presents a process flow diagram of the mineral crushing and processing equipment included in the visible emissions evaluation.

3.0 TEST PROCEDURES

United States Environmental Protection Agency (USEPA) Method 9, Visible Determination of the Opacity of Emissions from Stationary Sources, was used to determine the opacity of the

3.0 <u>TEST PROCEDURES</u>

United States Environmental Protection Agency (USEPA) Method 9, *Visible Determination of the Opacity of Emissions from Stationary Sources*, was used to determine the opacity of the emissions from non-metallic mineral crushing and processing emission points. A certified observer of visible emissions performed the evaluation.

The VE measurement sampling times and procedures used for the testing are consistent with those specified in the visible emissions test plan and the requirements of 40 CFR Part 60, Subparts A (General Provisions) and OOO (federal NSPS for Nonmetallic Mineral Processing Plants) regulations.

40 CFR §60.675(c)(3) specifies that Method 9 observations for fugitive emissions from affected sources under §60.672(b) may be reduced from three (3) hours (thirty 6-minute averages) to one (1) hour (ten 6-minute averages), if no opacity readings exceed 10% and no more than three readings of 10% are observed for the one-hour period.

The emission points were observed simultaneously in groups of two (2) or three (3) in accordance with USEPA guidance and the procedures specified in the test plan.

Appendix A provides a copy of the certificate issued to the qualified visible emissions observer.

4.0 TEST RESULTS

The VE observation compliance testing was conducted on July 22, 2014. During the VE observation compliance testing, the Eagle 1200 impact crushing facility (crusher, screen, and conveyors 25, 45, and 60) operated at an estimated rated capacity of 140 tons/hour (TpH). The material throughput for the crusher during the compliance testing was approximately 420 tons.

Derenzo and Associates performed one-hour observations for each potential emission point identified in Table 4.1.

The six-minute average VE test measurements performed on the mineral crushing and processing equipment are presented in Table 4.1. The fugitive emissions are in compliance with the NSPS emission standards specified in 40 CFR §60.672.

Table 4.1 presents a list of the visible emission observation points and a summary of the test results.

Appendix B provides copies of the field sampling data sheets.

Table 4.1 Visible emissions observation points and summary of test results

Visible Emissions Observation Points	Observed opacity	
Eagle 1200 Impact Crusher (crusher)	0%	
Eagle 1200 Screen (screen)	0%	
Return Conveyor to (crusher)	0%	
(screen) to (25)	0%	
(25) to (45)	0%	
(45) to (65)	0%	1
(65) to pile	0%	l
(screen) to Return Conveyor	0%	

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Certified USEPA Method 9 Observer