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RESULTS OF VISIBLE EMISSION COMPLIANCE TESTING FOR FARMER'S CO-OPERATIVE GRAIN COMPANY KINDE FACILITY GRAIN ELEATOR OPERATIONS

FARMER'S CO-OPERATIVE GRAIN COMPANY

Kinde, Huron County, Michigan

Project No. 1410001

November 21, 2014

Environmental Consultants

RESULTS OF VISIBLE EMISSION COMPLIANCE TESTING FOR FARMER'S CO-OPERATIVE GRAIN COMPANY KINDE FACILITY GRAIN ELEVATOR OPERATIONS

1.0 INTRODUCTION

Farmer's Co-Operative Grain Company (Farmer's Co-Op) operates the Kinde Facility, a grain elevator facility located in Kinde, Huron County.

Visible emissions (VE) testing was performed in accordance with federal reference test methods as required by New Source Performance Standards (NSPS), 40 CFR, Part 60, Subparts A and DD.

Mr. Robert Bingham of Derenzo and Associates performed the VE testing for the grain elevator operations and receiving hopper on November 12, 2014. Mr. Lenny Fisher, Kinde Facility Project Manager coordinated the project. Ms. Gina McCann with the MDEQ-AQD Saginaw Bay District Office was on-site and witnessed a portion of the VE testing.

Prior to conducting the field measurements, a visible emission test plan dated October 24, 2014 was submitted to the MDEQ-AQD for review and approval. The test plan summarized the proposed emission measurement protocol and procedures that were used for the compliance testing.

2.0 PROCESS DESCRIPTION

Farmers Co-op operates a grain elevator facility that is used to receive and ship grain (i.e. corn, wheat, beans, etc.).

Grain is received at the facility by truck and unloaded into a semi-enclosed pit. Fugitive dust emissions from the truck unloading are released into the atmosphere through a single receiving door that is open during truck unloading.

NSPS Subpart DD defines a grain unloading station as a portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

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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 the unloading/receiving pit (hopper). 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 DD (Standards of Performance for Grain Elevators).

As specified in 40 CFR 60.11 (a) ... For the purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance tests or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

The VE observations were performed for the grain unloading station while each truck unloaded corn. The observations were suspended until the next truck moved into position and began unloading corn. Visible emissions were evaluated for the space above and next to the receiving door that is open during truck unloading (where fugitive dust emissions were observed to be the highest).

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

4.0 <u>TEST RESULTS</u>

The VE observation compliance testing was conducted on November 13, 2014. The VE observation encompassed the unloading of 53 trucks for a total of approximately 41,500 bushels of corn. The average unloading time for each truck was 3.4 minutes. Moisture content of corn was approximately 20%.

Derenzo and Associates performed a total of 180 minutes of observations during grain unloading, which took place between 09:32 and 16:51.

The six-minute average opacity results for the grain elevator equipment are presented in Table 4.1.

The fugitive emissions are in compliance with the NSPS emission standards specified in 40 CFR §60.302(c), which states that ... no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emissions from:

Derenzo and Associates, Inc.

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(1) Any individual truck unloading station, railcar unloading station, or railcar holding station, which exhibits greater than 5 percent opacity.

Appendix B provides copies of the field sampling data sheets.

Report Prepared By:

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