

COMPLIANCE TEST REPORT

for

VISIBLE EMISSIONS OBSERVATIONS (VE)

St. Clair Fuels, LLC

Chem-Mod Coal Handling System

**St. Clair Power Plant
China Township, Michigan**

July 13, 2015

Prepared By
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EXECUTIVE SUMMARY

DTE Energy's Environmental Management & Resources (EM&R) Field Services Group performed visible emissions (VE) observations of the Reduced Emissions Fuel (REF) Coal Handling System at the DTE Electric, St. Clair Power Plant, located in China Township, Michigan. The fieldwork, performed on July 13, 2015, was conducted to satisfy requirements of the New Source Performance Standard (NSPS) under 40 CFR 60, Subparts A and Y and Michigan Department of Environmental Quality (MDEQ) Permit to Install No. 176-09B. Visible emissions observations were conducted on three (3) sources.

The results of the VE observations are highlighted below:

Visible Emissions Observations Summary St. Clair REF System July 13, 2015

Source	Production Rate (Tons/hour)	Visible Emissions (%)
Dust Collector No. 1	710	0
CMA Silo Dust Collector	35	0
Day Bin Vent Filter No.2	1.90	0



1.0 INTRODUCTION

DTE Energy's Environmental Management & Resources (EM&R) Field Services Group performed visible emissions (VE) observations of the Reduced Emissions Fuel (REF) Coal Handling System at the DTE Electric, St. Clair Power Plant, located in China Township, Michigan. The fieldwork, performed on July 13, 2015, was conducted to satisfy requirements of the New Source Performance Standard (NSPS) under 40 CFR 60, Subparts A and Y and Michigan Department of Environmental Quality (MDEQ) Permit to Install No. 176-09B. Visible emissions observations were conducted on three (3) sources.

All observations were performed for 30-minutes. Each observation consisted of five 6-minute averages as per the requirements in 40CFR 60.257 (a)(ii). All of the stipulations of 40CFR 60.257 were met.

The fieldwork was performed in accordance with EPA Reference Methods. The following EM&R personnel participated in the observation program: Mr. Thomas Snyder, Senior Environmental Technician. Mr. John Smith, at St. Clair Power Plant, provided process coordination for the testing program.

2.0 SOURCE DESCRIPTION

The St. Clair Power Plant (SCPP) located at 4901 Pointe Drive, St. Clair, Michigan 48054 employs the use of six (6) coal fired boilers. Units 1-4 are nominally rated at 150 gross megawatts (GMW), and Units 6 and 7 are nominally rated at 350 and 450 GMW, respectively.

The REF coal handling system includes the following processes which require VE testing as part of 40 CFR 60, Subpart A and Y regulations and MDEQ Permit No. 176-09B. The visible emission observations were performed on the equipment listed below. (See Figures 1 through 3):

1) Dust Collector No.1 (EU-CHEMMOD-SC)

Dust collector 1 controls emissions from the existing enclosed coal conveyor (CV 113) and all the treated coal transferring from pug mills No. 1, 2, 3.

2) CMA Silo No.1 Dust Collector (EU-CHEMMOD-SC)

The 750 ton CMA Silo is controlled by a dust collector positioned at the top of the silo which is activated during filling operations.



3) Day Bin Vent Filter No. 2 (EU-CHEMMOD-SC)

There are three day bins which hold the solid CMA with vent filters located at the top of the bin which are activated during filling operations.

The REF coal handling system operates as needed to service the treated refined coal needs of the plant.

3.0 SAMPLING AND ANALYTICAL PROCEDURES

DTE Energy obtained emissions measurements in accordance with procedures specified in the USEPA *Standards of Performance for New Stationary Sources*. The sampling and analytical methods used in the testing program are indicated in the table below

Sampling Method	Parameter	Analysis
USEPA Method 9	Visible Emissions	Field data analysis

3.1 VISIBLE EMISSIONS (USEPA METHOD 9)

3.1.1 Sampling Method

VE observations were conducted in accordance with the procedures outlined in USEPA, "Standards of Performance for New Stationary Sources" (*Federal Register*, 40 CFR 60), Method 9, "Visible Determination of the Opacity of Emissions from Stationary Sources."

3.1.2 Sampling Equipment

VE sampling equipment consisted of EPA Method 9 data sheets, clipboard & pen, compass, and stopwatch. Meteorological data was obtained from the local airport via cell phone and the internet.

4.0 RESULTS

All observations were performed for 30-minutes. Each observation consisted of five 6-minute averages as per the requirements in 40CFR 60.257(a)(ii). All of the stipulations of 40CFR 60.257 were met. Field data sheets associated with the testing are included in Appendix A.



The REF coal handling operations were maintained at their normal operating loads during all VE observations. Process data for the test periods is included in Appendix B.

The observer USEPA Method 9 certification sheet is included in Appendix C.

Results presented in this report are representative of the VE emissions from each source under normal operating conditions.

This report prepared by: Thomas Snyder

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for

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Figure 1

Site:
St. Clair Power Plant
St. Clair, MI

Source:
ChemMod System
Dust Collector No. 1

Sampling Dates:
July 13, 2015

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Figure 2

Site:
St. Clair Power Plant
St. Clair, MI

Source:
ChemMod System
Day Bin Vent Filter No. 2

Sampling Dates:
July 13, 2015

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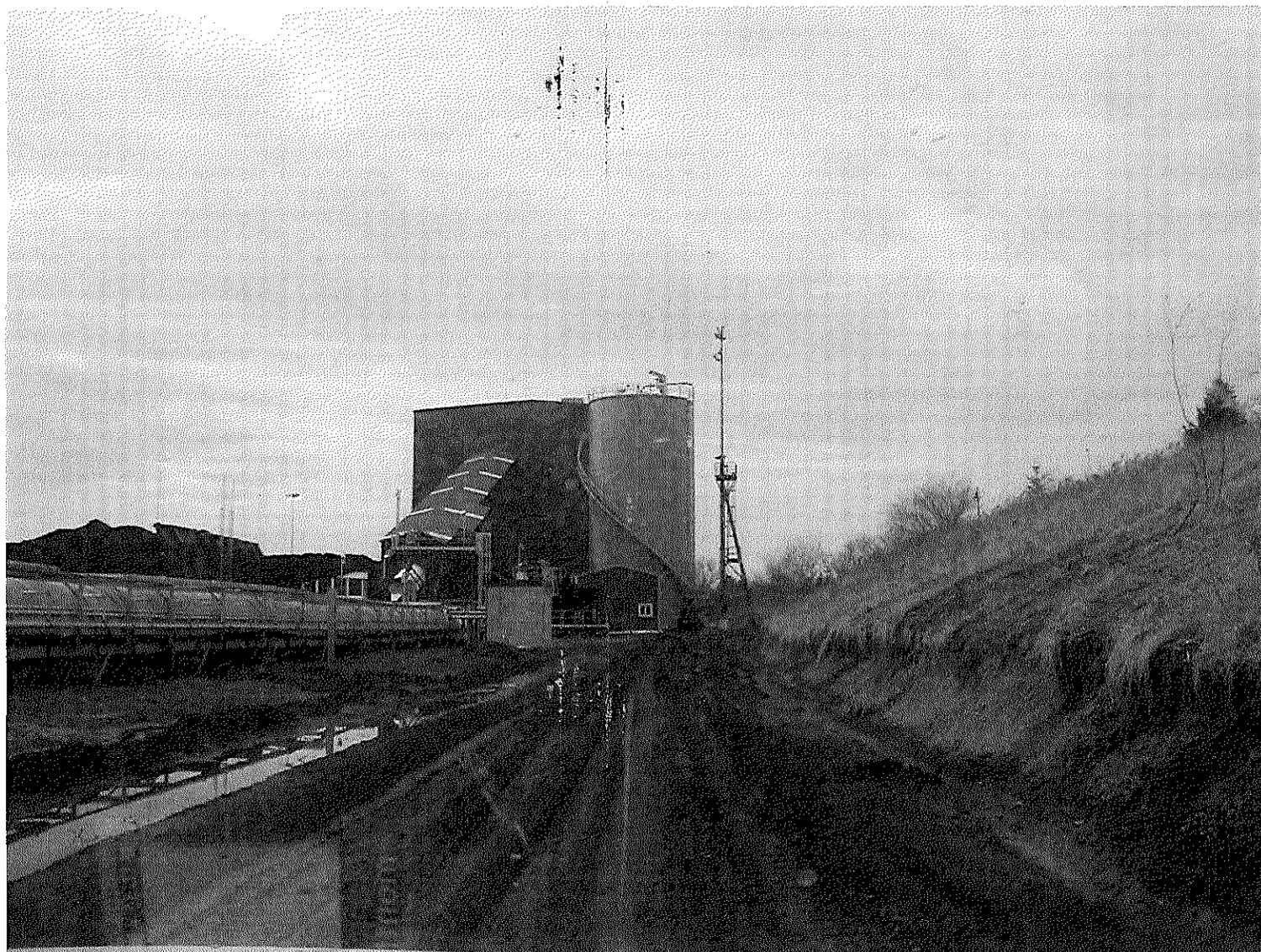


Figure 3

Site:
St. Clair Power Plant
St. Clair, MI

Source:
ChemMod System
CMA Silo No. 1 Dust Collector

Sampling Dates:
July 13, 2015

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