

Ammonia Emissions Compliance Test Report

New Covert Generating Company, LLC New Covert Generating Facility FG-TURB/DB3 Stack Covert, Michigan September 24, 2018

Report Submittal Date September 25, 2018



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AIR QUALITY DIVISION

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Project No. M183814

888 Industrial Drive Elmhurst, Illinois 60126 630-993-2100

1.0 EXECUTIVE SUMMARY

MOSTARDI PLATT conducted a compliance emissions test program for New Covert Generating Company, LLC at the New Covert Generating Facility in Covert, Michigan, on the FG-TURB/DB3 Stack. This report summarizes the results of the test program and test methods used. The test locations, test dates, and test parameters are summarized below.

TEST INFORMATION						
Test Location	Test Date	Test Parameter				
FG-TURB/DB3 Stack	September 24, 2018	Ammonia (NH₃)				

The purpose of the test program was to demonstrate ammonia emissions compliance in accordance with the TRC Environmental Corporation Emissions Test Compliance Protocol 302509, Revision 1, dated August 6, 2018 and approved by the Michigan Department of Environmental Quality (MDEQ) on August 29, 2018. Selected results of the test program are summarized below. A complete summary of emission test results follows the narrative portion of this report.

TEST RESULTS							
Test Location Test Parameter		Concentration	Emission Limit				
FG-TURB/DB3 Stack	NH3 ppmvd @ 15 % O2	8.1 ppmvd @ 15 % O ₂ *	10 ppmvd @ 15% O ₂ *				

*Full Load with duct burners firing

The identification of individuals associated with the test program is summarized below.

TEST PERSONNEL INFORMATION						
Location Address		Contact				
Test Facility	New Covert Generating Company, LLC	Mr. Chris Head				
New Covert Generating Facility		Operations Manager				
	26000 77th Street	(269) 764-3805 (phone)				
	Covert, Michigan 49043	CHead@camsops.com				
Testing Company Mostardi Platt		Mr. John Nestor				
Representative	888 Industrial Drive	Project Manager				
-	Elmhurst, Illinois 60126	630-993-2100 (phone)				
		jnestor@mp-mail.com				

2.0 TEST METHODOLOGY

Emission testing was conducted following the methods specified in 40 CFR, Part 60, Appendix A, and 40 CFR, Part 63, Appendix A. Plant Operating Data can be found in Appendix A. Schematics of the test section diagrams and sampling trains used are included in Appendix B and C, respectively. Calculation examples and nomenclature are included in Appendix D and reference method data are found in Appendix E. Copies of analyzer QAQC are found in appendix F.

The following methodologies were used during the test program:

Method 3A Oxygen (O₂) Determination

 O_2 determinations were performed in accordance with Method 3A. An ECOM analyzer was used to determine stack gas oxygen content in order to correct NH₃ concentrations to 15% O₂. The ECOM analyzer was connected to the exhaust of the FTIR sampling system during testing. All of the equipment used was calibrated in accordance with the specifications of the Method and calibration data are included in Appendix F. Copies of the gas cylinder certifications are included in Appendix G.

Method 4 Moisture Determination

Method 4 allows for the use of FTIR to measure moisture content of the stack effluent as stated in method 320.

Method 320 Fourier Transform Infrared (FTIR) Detector Multi-Gas Determination

Ammonia samples were collected using Extractive Fourier transform infrared (FTIR) spectrometry following US EPA Method 320 at the FG-TURB/DB3 Stack. FTIR data were collected using an MKS MultiGas 2030 FTIR spectrometer. A heated transfer line was used to collect the sample and deliver it to the FTIR, where data were collected at 0.5cm-1 resolution. Each spectrum was derived from the co-addition of 64 scans, with a new data point generated approximately every one minute.

Spiking was performed following each test run to verify the ability of the sampling system to quantitatively deliver a sample containing the requested analytes from the base of the probe to the FTIR. Analyte spiking assures the ability of the FTIR to quantify analytes of interest in the presence of effluent gas.

Sample analysis data are found in Appendix E. All of the equipment used was calibrated in accordance with the specifications of the Method.

3.0 TEST RESULT SUMMARIES

New Covert Generating Comapny, LLC Covert Michigan							
FG-TURB/DB3 Stack							
Ammonia Emission Summary							
Run	Date	Time	H₂O %v	NH ₃ (ppmv wet)	O2 (% dry)	NH ₃ (ppmv dry @ 15% O ₂)	
Run 1	9/24/2018	14:45-15:45	9.5	10.4	13.0	8.6	
Run 2	9/24/2018	16:15-17:15	9.6	9.2	12.9	7.5	
Run 3	9/24/2018	17:57-18:57	9.6	9.9	13.1	8.3	
Average		9.6	9.8	13.0	8.1		

4.0 CERTIFICATION

MOSTARDI PLATT is pleased to have been of service to New Covert Generating Company, LLC. If you have any questions regarding this test report, please do not hesitate to contact us at 630-993-2100.

CERTIFICATION

As project manager, I hereby certify that this test report represents a true and accurate summary of emissions test results and the methodologies employed to obtain those results, and the test program was performed in accordance with the methods specified in this test report.

MOSTARDI PLATT

John Norton

Program Manager

John Nestor

Es at

Quality Assurance

Eric L. Ehlers