

July 23, 2019

Ms. Amanda Chapel  
Kalamazoo District Office  
EGLE Air Quality Division  
7953 Adobe Road  
Kalamazoo, MI 49009



**Subject: 2019 Units 2 and 3 Initial Compliance Test Results**  
**New Covert Generating Company, LLC (SRN N6767)**  
**Permit to Install No. 186-17, ORIS ID 55297**

Dear Ms. Chapel:

In accordance with the requirements of Condition V.1 for group FG-TURB/DB1-3 of Permit to Install (PTI) 186-17 and 40 CFR 60.8(d), New Covert Generating Company LLC ("New Covert") conducted initial compliance testing on Units 2 and 3 on May 9, 10, 29, and 30, 2019. With this correspondence, New Covert submits the results of these initial compliance tests.

The initial compliance test results demonstrate compliance with all applicable limits in PTI 186-17 and 40 CFR 60.

Should you have any questions please contact me at (269) 764-3805 or [chead@camstex.com](mailto:chead@camstex.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Head".

Chris Head  
Operations Manager  
New Covert Generating Company, LLC

cc:  
Mr. Andrew Oliver, Eastern Generation LLC (email)

Ms. Karen Kajiya-Mills  
EGLE Air Quality Division  
Constitution Hall, 2<sup>nd</sup> Floor South  
525 West Allegan St  
Lansing, MI 48933

**Ammonia, Nitrogen  
Oxides, Carbon Monoxide,  
Sulfur Dioxide, Total  
Particulate Matter, Volatile  
Organic Compounds, and  
Sulfuric Acid Emissions  
Compliance Test Report**

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New Covert Generating Company, LLC  
New Covert Generating Facility  
EU-TURBINE2/DB2 Stack  
Covert, Michigan  
Project No. M190212CR1  
May 29 and 30, 2019





**Ammonia, Nitrogen Oxides, Carbon Monoxide, Sulfur  
Dioxide, Total Particulate Matter, and Sulfuric Acid  
Emissions Compliance  
Test Report**

**New Covert Generating Company, LLC  
New Covert Generating Facility  
EU-TURBINE2/DB2 Stack  
Covert, Michigan  
May 29 and 30, 2019**



**Report Submittal Date  
July 22, 2019**

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**Project No. M190212CR1**

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## 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 EU-TURBINE2/DB2 Stack. This report summarizes the results of the test program and test methods used. The test location, test date, and test parameters are summarized below.

TEST INFORMATION			
Test Location	Test Date	Test Parameter	Test Method
EU-TURBINE2/DB2 Stack	May 29 and 30, 2019	Volumetric Flow Rate	Method 1 and Method 2
		Carbon Dioxide (CO <sub>2</sub> ) and Oxygen (O <sub>2</sub> )	Method 3A
		Nitrogen Oxides (NO <sub>x</sub> )	Method 7E
		Carbon Monoxide (CO)	Method 10
		Ammonia (NH <sub>3</sub> )	Method 320
		Moisture (H <sub>2</sub> O)	Method 320
		Volatile Organic Compounds (VOC)	Method 25A
		Total Particulate Matter (TPM)	Method 5 and Method 202
		Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	Conditional Test Method 013 (CTM-013)

New Covert owns and operates the New Covert Generating Facility located at 26000 77th Street in Covert, Michigan. The facility consists of three natural gas-fired Mitsubishi 501G turbines with heat recovery steam generators (HRSGs), designated as Emission Unit (EU) EU-TURBINE1, EU-TURBINE2 and EU-TURBINE3. Each HRSG contains a duct burner designated as EU-DB1, EU-DB2 and EU-DB3, respectively, to provide additional steam generating capability and increase the maximum power generating capability of the HRSG. Each duct burner is rated at approximately 256 million British thermal units per hour (MMBtu/hr). Each turbine and duct burner set are equipped with a dry low-NO<sub>x</sub> combustor, and each HRSG is equipped with a selective catalytic reduction (SCR) system and an oxidation catalyst to control NO<sub>x</sub> and CO emissions.

The stacks are circular and measure 22.1 feet (ft) (265 inches) in diameter at the test ports which are approximately 140 ft above grade level with an exit elevation of approximately 160 ft above grade level. The test ports are located approximately 85 ft (1020 inches) downstream and approximately 20 ft (240 inches) upstream from the nearest disturbances.

A single, dedicated CEMS is installed at each unit. The CEMS configuration includes a NO<sub>x</sub> analyzer, a CO analyzer, a diluent gas O<sub>2</sub> monitor for measurements at the outlet stack, and a data acquisition and handling system (DAHS).

The purpose of the test program was to demonstrate compliance emission limits in accordance with the Mostardi Platt Emission Test Protocol M190211 Rev. 1 dated February 21, 2019. 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 Condition	Test Parameter	Measured Concentration	Emission Limit
100% Load with Duct Burners On	NO <sub>x</sub>	1.2 ppmvd @ 15% O <sub>2</sub>	2.0 ppmvd @ 15% O <sub>2</sub>
		13.0 lb/hr	22.4 lb/hr
	CO	0.3 ppmvd	2.0 ppmvd
	TPM*	6.992 lb/hr	10.7 lb/hr
	SO <sub>2</sub> **	0.0004 lb/mmBTU***	0.060 lb/mmBTU
	H <sub>2</sub> SO <sub>4</sub>	0.10 lb/hr	1.0 lb/hr
	NH <sub>3</sub> ppmvd @ 15% O <sub>2</sub>	5.1 ppmvd @ 15% O <sub>2</sub>	10 ppmvd @ 15% O <sub>2</sub>
	VOC	0.4 lb/hr	7.7 lb/hr

\* All Particulate Collected was considered less than 2.5

\*\* 100% conversion of sulfur in fuel to SO<sub>2</sub> was assumed for calculations

\*\*\* Pipeline Natural Gas analysis performed on 5/13/2019

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

The test crew consisted of E. Ehlers, B. Hendricks, J. Juarez, W. Petrovich, and J. Nestor of Mostardi Platt.

## 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 diagram and sampling train 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 QA/QC are found in Appendix F.

The following methodologies were used during the test program:



**Ammonia, Nitrogen  
Oxides, Carbon Monoxide,  
Sulfur Dioxide, Total  
Particulate Matter, Volatile  
Organic Compounds, and  
Sulfuric Acid Emissions  
Compliance Test Report**

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New Covert Generating Company, LLC  
New Covert Generating Facility  
EU-TURBINE3/DB3 Stack  
Covert, Michigan  
Project No. M190212AR1  
May 10, 2019





**Ammonia, Nitrogen Oxides, Carbon Monoxide, Sulfur  
Dioxide, Total Particulate Matter, and Sulfuric Acid  
Emissions Compliance  
Test Report**

**New Covert Generating Company, LLC  
New Covert Generating Facility  
EU-TURBINE3/DB3 Stack  
Covert, Michigan  
May 10, 2019**

**Report Submittal Date  
July 22, 2019**

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**Project No. M190212AR1**



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TEST INFORMATION			
Test Location	Test Date	Test Parameter	Test Method
EU-TURBINE3/DB3 Stack	May 10, 2019	Volumetric Flow Rate	Method 1 and Method 2
		Carbon Dioxide (CO <sub>2</sub> ) and Oxygen (O <sub>2</sub> )	Method 3A
		Nitrogen Oxides (NO <sub>x</sub> )	Method 7E
		Carbon Monoxide (CO)	Method 10
		Ammonia (NH <sub>3</sub> )	Method 320
		Moisture (H <sub>2</sub> O)	Method 320
		Volatile Organic Compounds (VOC)	Method 25A
		Total Particulate Matter (TPM)	Method 5 and Method 202
		Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	Conditional Test Method 013 (CTM-013)

New Covert owns and operates the New Covert Generating Facility located at 26000 77th Street in Covert, Michigan. The facility consists of three natural gas-fired Mitsubishi 501G turbines with heat recovery steam generators (HRSGs), designated as Emission Unit (EU) EU-TURBINE1, EU-TURBINE2 and EU-TURBINE3. Each HRSG contains a duct burner designated as EU-DB1, EU-DB2 and EU-DB3, respectively, to provide additional steam generating capability and increase the maximum power generating capability of the HRSG. Each duct burner is rated at approximately 256 million British thermal units per hour (MMBtu/hr). Each turbine and duct burner set are equipped with a dry low-NO<sub>x</sub> combustor, and each HRSG is equipped with a selective catalytic reduction (SCR) system and an oxidation catalyst to control NO<sub>x</sub> and CO emissions.

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The purpose of the test program was to demonstrate compliance emission limits in accordance with the Mostardi Platt Emission Test Protocol M190211 Rev. 1 dated February 21, 2019. 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 Condition	Test Parameter	Measured Concentration	Emission Limit
100% Load with Duct Burners On	NO <sub>x</sub>	1.6 ppmvd @ 15% O <sub>2</sub>	2.0 ppmvd @ 15% O <sub>2</sub>
		17.4 lb/hr	22.4 lb/hr
	CO	<0.2 ppmvd	2.0 ppmvd
	TPM*	8.657 lb/hr	10.7 lb/hr
	SO <sub>2</sub> **	0.0004 lb/mmBTU	0.060 lb/mmBTU
	H <sub>2</sub> SO <sub>4</sub>	0.05 lb/hr	1.0 lb/hr
	NH <sub>3</sub> ppmvd @ 15% O <sub>2</sub>	2.5 ppmvd @ 15% O <sub>2</sub>	10 ppmvd @ 15% O <sub>2</sub>
	VOC	1.4 lb/hr	7.7 lb/hr

\* All Particulate Collected was considered less than 2.5

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Testing Company Representative	Mostardi Platt 888 Industrial Drive Elmhurst, Illinois 60126	Mr. John Nestor Project Manager 630-993-2100 (phone) jnestor@mp-mail.com

The test crew consisted of J. Kukla, B. Garcia, C. Menet B. Hendricks, and J. Nestor of Mostardi Platt.

## 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 diagram and sampling train 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 QA/QC are found in Appendix F.

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