

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 EUTURBINE2/DB2 Stack on October 29, 2021. 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 Parameters
EUTURBINE2/DB2 Stack	October 29, 2021	Non-Methane Non-Ethane Volatile Organic Compounds (NMNE VOC), Methane (CH ₄), and Ethane (C ₂ H ₆)

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 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_x combustor, and each HRSG is equipped with a selective catalytic reduction (SCR) system and an oxidation catalyst to control NO_x 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_x analyzer, a CO analyzer, a diluent gas O₂ monitor for measurements at the outlet stack, and a data acquisition and handling system (DAHS).

The purpose of the test program was to demonstrate total non-methane, non-ethane hydrocarbon emissions on the EUTURBINE2/DB2 Stack. 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	Test Condition	Emission Limit	Emission Rate
EUTURBINE2/DB2 Stack	NMNE VOC	Full Load Duct Burners On	1.0 ppmv dry as CH ₄ @ 15% O ₂	0.4 ppmv dry as CH ₄ @ 15% O ₂

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 th Street Covert, Michigan 49043	Mr. Chris Head Operations Manager (269) 764-3805 (phone) CHead@camsops.com
Testing Company Supervisor	Mostardi Platt 888 Industrial Drive Elmhurst, Illinois 60126	Mr. John S. Nestor Project Manager 630-993-2100 (phone) jnestor@mp-mail.com

The test program was conducted by Messrs. T. Long 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. 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. Copies of analyzer print-outs for each test run are included in Appendix E.

The following methodologies were used during the test program:

Method 3A Oxygen (O₂) Determination

Flue gas O₂ was determined in accordance with Method 3A. An ECOM analyzer was used to determine stack gas oxygen content and was connected to the outlet of the FTIR analyzer.

Stack gas was delivered to the analyzer via a Teflon® sampling line, heated to a minimum temperature of 375°F. The entire system was calibrated in accordance with the Method, using certified calibration gases introduced at the probe, before and after each test run.

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 25A Volatile Organic Compound (VOC) Determination

VOC concentrations and emission rates were determined in accordance with Method 25A. A Thermo 51i flame ionization detector (FID) analyzer was used to determine total hydrocarbon (THC) concentrations, while Method 320 was performed simultaneously to subtract CH₄ and C₂H₆ concentrations to determine VOC. Stack gas was delivered to the system via a Teflon® sampling line, heated to a minimum temperature of 300°F. Sample was delivered first to the Method 320 FTIR analyzer, with the Method 25A FID analyzer connected to the exhaust of the FTIR analyzer.

The system was calibrated before and after each test run using certified calibration gases of methane for the THC determination. Methane and ethane concentrations were then subtracted based upon the simultaneous data collected and recorded by the FTIR analyzer. A list of calibration gases used and the results of all calibration and other required quality assurance

checks can be found in Appendix F. Copies of calibration gas certifications can be found in Appendix G.

Method 320 Fourier Transform Infrared (FTIR) Detector Multi-Gas Determination of Methane (CH₄), Ethane (C₂H₆) and Moisture (H₂O)

The Method 320 sampling and measurement system meets the requirements of US EPA Reference Method 320, "Vapor Phase Organic and Inorganic Emissions by Extractive FTIR," 40CFR63, Appendix A. This method applies to the measurement of methane, ethane, and moisture concentrations. USEPA Method 4, 40CFR60, specifies method 320 as an acceptable alternative for moisture determination.

With this method, gas samples are extracted from the sample locations through heated Teflon sample lines to the analyzers. FTIR technology works on the principle that most gases absorb infrared light. This is true for all compounds with the exception of homonuclear diatomic molecules and noble gases such as: N₂, O₂, H₂, He, Ne, and Ar. Vibrations, stretches, bends, and rotations within the bonds of a molecule determine the infrared absorption distinctiveness. The absorption creates a "fingerprint" which is unique to each given compound. The quantity of infrared light absorbed is proportional to the gas concentration. Most compounds have absorbencies at different infrared frequencies, thus allowing the simultaneous analysis of multiple compounds at one time. The FTIR software compares each sample spectrum to a user selected list of calibration references and concentration data is generated.

FTIR data was collected using an MKS MultiGas 2030 FTIR spectrometer. Spiking was performed following each test run to verify the ability of the sampling system to quantitatively deliver a sample containing volatile organic compounds 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. All analyte spikes were introduced using an instrument grade stainless steel rotameter. All QA/QC procedures were within the acceptance criteria allowance of Method 320. All of the equipment used was calibrated in accordance with the specifications of the Method. Calibration data are presented in Appendix F.

Methane and ethane concentrations were subtracted from the total hydrocarbon emissions to determine non-methane non-ethane volatile organic emissions from each unit. Moisture numbers were used to calculate emissions on a dry basis.

3.0 TEST RESULT SUMMARIES

New Covert Generating Company, LLC New Covert Generating Facility EUTURBINE2/DB2 Stack VOC Summary - Full Load With Duct Burners												
Test No.	Date	Start Time	End Time	H ₂ O (%v)	O ₂ (%v dry)	THC ppm as CH ₄ (wet)	CH ₄ ppm as CH ₄ (wet)	C ₂ H ₆ ppm as CH ₄ (wet)	VOC ppm as CH ₄ (wet)	VOC ppm as CH ₄ (dry)	VOC lb/mmBtu as CH ₄	VOC ppmv dry as CH ₄ @ 15% O ₂
1	10/29/21	10:10	11:32	8.2	12.4	0.6	0.1	0.4	0.6	0.7	0.00058	0.5
2	10/29/21	12:05	13:32	8.2	12.4	0.6	-0.1	0.2	0.6	0.7	0.00058	0.5
3	10/29/21	14:20	15:47	8.1	12.5	0.5	0.1	0.2	0.5	0.5	0.00049	0.4
Average				8.2	12.4	0.6	0.0	0.3	0.6	0.6	0.00055	0.4

*Methane and Ethane values were below detection and were not used to calculate Non-methane non ethane VOC numbers

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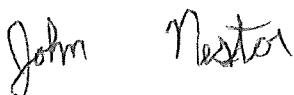
AIR QUALITY DIVISION

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.

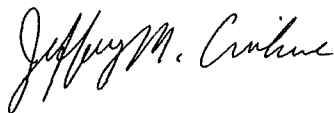
As project manager, I hereby certify that this test report represents a true and accurate summary of emissions test results and the methodologies employed to obtain those results, and the test program was performed in accordance with the methods specified in this test report.

MOSTARDI PLATT



John S. Nestor

Program Manager



Jeffrey M. Crivlare

Quality Assurance

APPENDICES

Appendix A - Plant Operating Data

New Covert Generating Unit 2 RATA 10/29/2021

Run 1	HHV Gas Btu/scf 1-Min	75-NOx ppm 1-Min	ppm @15% O2 1-Min	75-NOx lb/mmBtu 1-Min	CO ppm 1-Min	CO lb/mmBtu 1-Min	CO lb/hr 1-Min	75-O2%	Fuel Flow klb/hr 1-Min	Heat Input Total 1-Min	CT Megawa tts 1-Min	Steam Turbine Megawa tts 1-Min
10:10	1073.4	2.62	1.83	0.0067	0.0	0	0	12.5	114.56	2738.7	255	133.9
10:11	1073.2	2.63	1.84	0.0068	0.0	0	0	12.5	114.48	2735.9	254.3	133.9
10:12	1073.2	2.64	1.84	0.0068	0.0	0	0	12.5	114.26	2731.1	254.6	133.8
10:13	1073.2	2.62	1.83	0.0067	0.1	0.0001	0.28	12.5	114.66	2740.7	255.1	133.9
10:14	1073.2	2.62	1.83	0.0067	0.0	0	0	12.5	114.66	2740.7	254.9	133.9
10:15	1073.2	2.62	1.83	0.0067	0.0	0	0	12.4	114.57	2738.3	255.1	133.9
10:16	1073.2	2.65	1.85	0.0068	0.0	0	0	12.5	114.46	2735.9	254.6	133.8
10:17	1073.2	2.65	1.85	0.0068	0.0	0	0	12.4	114.57	2738.3	254.6	133.7
10:18	1073.2	2.63	1.84	0.0068	0.0	0	0	12.5	114.56	2738.3	254.5	133.8
10:19	1073.2	2.63	1.84	0.0068	0.0	0	0	12.5	114.57	2738.3	254.6	133.8
10:20	1073.2	2.63	1.84	0.0068	0.0	0.0001	0.28	12.5	114.96	2747.8	254.8	133.8
10:21	1073.2	2.63	1.84	0.0068	0.0	0	0	12.5	114.67	2740.7	254.5	133.9
10:22	1073.2	2.61	1.82	0.0067	0.0	0	0	12.5	114.96	2747.8	255.1	133.9
10:23	1073.2	2.61	1.82	0.0067	0.0	0	0	12.4	114.67	2740.7	254.7	133.9
10:24	1073.2	2.6	1.81	0.0067	0.0	0	0	12.4	114.65	2740.7	254.5	133.9
10:25	1073.2	2.62	1.83	0.0067	0.0	0	0	12.5	114.66	2740.7	254.4	133.9
10:26	1073.2	2.6	1.81	0.0067	0.0	0	0	12.4	114.47	2735.9	254.5	133.7
10:27	1073.2	2.6	1.81	0.0067	0.0	0	0	12.4	114.36	2733.5	254.3	133.7
10:28	1073.2	2.59	1.81	0.0067	0.0	0	0	12.5	114.65	2740.7	254.7	133.8
10:29	1073.3	2.59	1.81	0.0067	0.0	0	0	12.4	114.66	2741	254.8	133.7
10:30	1073.3	2.6	1.82	0.0067	0.0	0	0	12.5	114.77	2743.3	254.8	133.8
Average	1073.2	2.6	1.8	0.0067	0.0	0.0	0.0	12.4	114.6	2739.5	254.7	133.8

Run 2	HHV Gas Btu/scf 1-Min	75-NOx ppm 1-Min	ppm @15% O2 1-Min	75-NOx lb/mmBtu 1-Min	CO ppm 1-Min	CO lb/mmBtu 1-Min	CO lb/hr 1-Min	75-O2%	Fuel Flow klb/hr 1-Min	Heat Input Total 1-Min	CT Megawa tts 1-Min	Steam Turbine Megawa tts 1-Min
10:45	1073.3	2.62	1.83	0.0068	0.1	0.0001	0.28	12.5	114.35	2733.8	254	133.6
10:46	1073.3	2.61	1.82	0.0067	0.0	0	0	12.5	114.54	2737.5	254.2	133.6
10:47	1073.4	2.58	1.8	0.0066	0.0	0	0	12.5	114.25	2731.6	254.7	133.6
10:48	1073.4	2.57	1.79	0.0066	0.1	0.0001	0.28	12.5	114.76	2743.6	254.4	133.6
10:49	1073.4	2.6	1.81	0.0067	0.1	0.0001	0.28	12.4	114.54	2738.7	254.2	133.6
10:50	1073.4	2.6	1.82	0.0067	0.0	0	0	12.5	114.45	2736.4	254.1	133.6
10:51	1073.4	2.58	1.8	0.0066	0.0	0	0	12.5	114.46	2736.4	254.2	133.7
10:52	1073.4	2.58	1.8	0.0066	0.0	0	0	12.5	114.44	2736.4	254.1	133.7
10:53	1073.4	2.6	1.82	0.0067	0.0	0	0	12.5	114.34	2734	254	133.7
10:54	1073.4	2.59	1.8	0.0066	0.0	0	0	12.4	114.66	2741.2	254.1	133.7
10:55	1073.4	2.59	1.8	0.0066	0.0	0	0	12.4	114.14	2729.2	253.9	133.7
10:56	1073.4	2.57	1.79	0.0066	0.0	0	0	12.4	114.64	2741.2	254.2	133.7
10:57	1073.4	2.55	1.78	0.0066	0.0	0	0	12.4	114.55	2738.7	253.8	133.7
10:58	1073.4	2.57	1.79	0.0066	0.0	0	0	12.5	114.25	2731.6	253.7	133.7
10:59	1073.3	2.56	1.78	0.0066	0.0	0	0	12.4	114.54	2737.5	253.8	133.7
11:00	1073.3	2.54	1.78	0.0065	0.0	0	0	12.5	114.55	2738.5	254.4	133.6
11:01	1073.3	2.53	1.76	0.0065	0.1	0.0001	0.28	12.4	114.26	2731.3	253.6	133.6
11:02	1073.3	2.56	1.79	0.0066	0.0	0	0	12.5	113.94	2723.2	252.9	133.6
11:03	1073.3	2.53	1.77	0.0065	0.0	0	0	12.5	114.74	2742.3	254.2	133.6
11:04	1073.3	2.5	1.74	0.0064	0.0	0	0	12.4	114.16	2729	253.2	133.6
11:05	1073.2	2.5	1.75	0.0064	0.0	0	0	12.5	114.24	2730.1	253.8	133.7
Average	1073.4	2.6	1.8	0.0066	0.0	0.0	0.1	12.4	114.4	2735.3	254.0	133.6

Run 3	HHV	ppm								Fuel	Heat	Steam	
	Gas	75-NOx	@15%	75-NOx	CO	CO	CO			Flow	Input	CT	Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	75-O2%		klb/hr	Total	Megawa	Megawa
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min		1-Min	1-Min	tts 1-Min	tts 1-Min
11:15	1073.3	2.51	1.75	0.0064	0.0	0	0	12.4		114.35	2733.8	253.7	133.4
11:16	1073.3	2.5	1.75	0.0064	0.0	0	0	12.5		114.34	2732.8	253.8	133.5
11:17	1073.3	2.51	1.75	0.0065	0.0	0	0	12.5		114.45	2736.1	253.2	133.5
11:18	1073.3	2.5	1.74	0.0064	0.0	0	0	12.4		114.36	2733.8	253.6	133.4
11:19	1073.3	2.49	1.74	0.0064	0.0	0	0	12.5		114.64	2740	253.7	133.4
11:20	1073.3	2.49	1.73	0.0064	0.0	0	0	12.4		114.34	2732.8	253.3	133.4
11:21	1073.3	2.5	1.74	0.0064	0.0	0	0	12.4		114.26	2731.3	253.6	133.5
11:22	1073.3	2.5	1.74	0.0064	0.0	0	0	12.4		114.35	2733.8	253.3	133.4
11:23	1073.2	2.49	1.74	0.0064	0.0	0	0	12.5		114.34	2732.5	253.5	133.4
11:24	1073.2	2.51	1.75	0.0064	0.0	0	0	12.4		114.35	2733.5	253.2	133.4
11:25	1073.2	2.5	1.74	0.0064	0.0	0	0	12.4		114.25	2731.1	253.5	133.4
11:26	1073.2	2.48	1.73	0.0064	0.0	0	0	12.5		114.24	2730.1	253.6	133.3
11:27	1073.2	2.49	1.74	0.0064	0.0	0	0	12.4		114.15	2728.7	253.7	133.4
11:28	1073.2	2.5	1.74	0.0064	0.0	0	0	12.4		113.95	2724	253.5	133.4
11:29	1073	2.51	1.75	0.0065	0.0	0	0	12.5		114.34	2732.1	253.7	133.3
11:30	1073	2.51	1.75	0.0065	0.0	0	0	12.5		113.94	2722.5	252.9	133.4
11:31	1073	2.5	1.75	0.0064	0.0	0	0	12.5		114.25	2730.6	253.4	133.3
11:32	1073	2.48	1.73	0.0064	0.0	0	0	12.5		114.14	2727.2	253.1	133.3
11:33	1073	2.48	1.73	0.0064	0.1	0.0001	0.28	12.5		114.13	2727.2	252.9	133.3
11:34	1072.9	2.48	1.74	0.0064	0.0	0	0	12.5		114.15	2728	252.9	133.2
11:35	1072.9	2.46	1.72	0.0063	0.1	0.0001	0.28	12.5		114.13	2727	253	133.3
Average	1073.2	2.5	1.7	0.0064	0.0	0.0	0.0	12.4		114.3	2730.9	253.4	133.4

Run 4	HHV	ppm								Fuel	Heat	Steam	
	Gas	75-NOx	@15%	75-NOx	CO	CO	CO			Flow	Input	CT	Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	75-O2%		klb/hr	Total	Megawa	Megawa
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min		1-Min	1-Min	tts 1-Min	tts 1-Min
12:05	1072.5	2.51	1.75	0.0064	0.0	0	0	12.4		113.65	2715.1	251.8	133.2
12:06	1072.5	2.55	1.79	0.0066	0.0	0	0	12.5		114.23	2728.4	253.1	133.2
12:07	1072.5	2.56	1.79	0.0066	0.1	0.0001	0.27	12.5		114.04	2723.7	252.1	133.2
12:08	1072.5	2.57	1.79	0.0066	0.0	0	0	12.4		113.65	2715.1	251.7	133.1
12:09	1072.5	2.58	1.8	0.0066	0.0	0	0	12.4		113.84	2718.9	252.1	133.2
12:10	1072.5	2.51	1.75	0.0064	0.0	0	0	12.4		114.23	2728.4	252.8	133.2
12:11	1072.5	2.51	1.75	0.0064	0.0	0	0	12.4		113.95	2722.3	252.2	133.3
12:12	1072.5	2.56	1.78	0.0066	0.0	0.0001	0.27	12.4		114.04	2723.7	252.7	133.2
12:13	1072.5	2.61	1.82	0.0067	0.0	0	0	12.5		114.13	2726	252.5	133.1
12:14	1072.5	2.6	1.82	0.0067	0.0	0	0	12.5		114.04	2723.7	253	133
12:15	1072.5	2.61	1.83	0.0067	0.0	0	0	12.5		114.04	2723.7	252.2	133
12:16	1072.5	2.61	1.82	0.0067	0.0	0	0	12.5		114.03	2723.7	252.3	133
12:17	1072.5	2.6	1.82	0.0067	0.0	0	0	12.5		113.93	2721.3	252.8	133.1
12:18	1072.5	2.58	1.8	0.0066	0.1	0.0002	0.55	12.4		113.84	2718.9	251.5	133
12:19	1072.5	2.6	1.82	0.0067	0.0	0	0	12.5		113.73	2716.5	251.5	132.9
12:20	1072.5	2.57	1.79	0.0066	0.1	0.0001	0.27	12.4		113.82	2718.9	252.5	132.9
12:21	1072.5	2.5	1.74	0.0064	0.0	0	0	12.4		113.54	2711.8	251.9	133
12:22	1072.5	2.51	1.75	0.0064	0.0	0	0	12.4		113.93	2721.3	252.6	133.1
12:23	1072.5	2.54	1.77	0.0065	0.0	0.0001	0.27	12.4		113.92	2721.3	252.5	133
12:24	1072.5	2.57	1.79	0.0066	0.0	0	0	12.4		113.73	2716.5	252.3	133
12:25	1072.5	2.61	1.82	0.0067	0.0	0	0	12.4		113.84	2718.9	252.4	133.1
Average	1072.5	2.6	1.8	0.0066	0.0	0.0	0.1	12.4		113.9	2720.9	252.3	133.1

Run 5	HHV	75-NOx	ppm	75-NOx	CO	CO	CO	75-O2%	Fuel	Heat	CT	Steam
	Gas		@15%						Flow	Input		Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	1-Min	klb/hr	Total	Megawa	Megawa
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min	1-Min	1-Min	tts 1-Min	tts 1-Min
12:35	1072.5	2.61	1.82	0.0067	0.0	0	0	12.4	113.72	2716.5	252.3	133
12:36	1072.5	2.63	1.84	0.0068	0.0	0	0	12.5	113.62	2714.1	252.7	133
12:37	1072.5	2.63	1.84	0.0068	0.0	0	0	12.5	113.92	2721.3	252.3	133
12:38	1072.5	2.64	1.85	0.0068	0.0	0	0	12.5	113.93	2721.3	252.9	133.1
12:39	1072.5	2.63	1.83	0.0068	0.0	0	0	12.4	113.72	2716.5	252.7	133
12:40	1072.5	2.63	1.83	0.0067	0.0	0	0	12.4	113.61	2714.1	252.3	133.1
12:41	1072.5	2.65	1.85	0.0068	0.0	0	0	12.4	113.82	2718.9	252.3	133
12:42	1072.5	2.64	1.84	0.0068	0.0	0	0	12.4	113.83	2718.9	252.3	133
12:43	1072.5	2.61	1.82	0.0067	0.0	0	0	12.4	114.11	2726	252.9	133
12:44	1072.5	2.62	1.83	0.0067	0.0	0	0	12.4	113.72	2716.5	252.2	133
12:45	1072.5	2.63	1.84	0.0068	0.0	0	0	12.5	114.13	2726	253	133
12:46	1072.5	2.62	1.82	0.0067	0.0	0	0	12.4	113.92	2721.3	252.6	133
12:47	1072.4	2.63	1.84	0.0068	0.0	0	0	12.5	113.92	2721.1	252.9	133
12:48	1072.4	2.65	1.85	0.0068	0.0	0	0	12.4	113.83	2718.6	252.6	133
12:49	1072.4	2.65	1.85	0.0068	0.0	0	0	12.4	113.93	2721.1	252.5	132.9
12:50	1072.4	2.64	1.84	0.0068	0.0	0	0	12.5	114.22	2728.2	252.9	132.9
12:51	1072.4	2.63	1.84	0.0068	0.0	0	0	12.5	114.11	2725.8	252.7	132.8
12:52	1072.4	2.62	1.83	0.0067	0.0	0	0	12.5	114.04	2723.5	252.9	132.8
12:53	1072.3	2.62	1.83	0.0067	0.0	0	0	12.4	113.93	2720.9	252.8	132.9
12:54	1072.3	2.61	1.82	0.0067	0.0	0	0	12.4	114.12	2725.6	252.8	132.8
12:55	1072.3	2.62	1.82	0.0067	0.0	0	0	12.4	113.62	2713.7	252.1	132.7
Average	1072.4	2.6	1.8	0.0068	0.0	0.0	0.0	12.4	113.9	2720.5	252.6	133.0

Run 6	HHV	75-NOx	ppm	75-NOx	CO	CO	CO	75-O2%	Fuel	Heat	CT	Steam
	Gas		@15%						Flow	Input		Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	1-Min	klb/hr	Total	Megawa	Megawa
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min	1-Min	1-Min	tts 1-Min	tts 1-Min
13:15	1072.3	2.71	1.89	0.0070	0.0	0	0	12.4	114.14	2725.6	252.9	132.8
13:16	1072.4	2.76	1.93	0.0071	0.0	0	0	12.5	114.14	2725.8	252.8	132.9
13:17	1072.4	2.77	1.93	0.0071	0.0	0	0	12.4	114.13	2725.8	252.4	132.9
13:18	1072.4	2.79	1.95	0.0072	0.2	0.0002	0.54	12.5	113.92	2721.1	252.8	132.9
13:19	1072.4	2.78	1.93	0.0071	0.0	0	0	12.4	114.03	2723.5	252.5	132.9
13:20	1072.4	2.77	1.93	0.0071	0.0	0	0	12.5	114.03	2723.5	252.3	132.9
13:21	1072.4	2.74	1.91	0.0070	0.0	0	0	12.4	113.82	2718.6	252.6	132.9
13:22	1072.4	2.74	1.91	0.0070	0.0	0	0	12.4	113.92	2721.1	252.3	132.9
13:23	1072.6	2.77	1.93	0.0071	0.0	0	0	12.4	114.03	2723.9	252.5	133
13:24	1072.6	2.77	1.93	0.0071	0.0	0	0	12.5	114.03	2723.9	252.6	132.9
13:25	1072.6	2.77	1.93	0.0071	0.0	0	0	12.4	113.92	2721.6	252.4	133
13:26	1072.6	2.8	1.96	0.0072	0.0	0	0	12.5	114.11	2726.3	252.7	132.8
13:27	1072.6	2.82	1.96	0.0072	0.0	0	0	12.4	114.02	2723.9	252.3	132.8
13:28	1072.6	2.82	1.97	0.0072	0.0	0	0	12.4	113.83	2719.1	252.5	132.8
13:29	1072.7	2.82	1.96	0.0072	0.0	0	0	12.4	113.72	2717	252.4	132.9
13:30	1072.7	2.8	1.95	0.0072	0.0	0	0	12.4	113.81	2719.3	252.4	132.8
13:31	1072.7	2.8	1.96	0.0072	0.0	0	0	12.5	114.02	2724.2	252.2	132.9
13:32	1072.7	2.8	1.95	0.0072	0.0	0	0	12.4	113.83	2719.3	252.4	132.8
13:33	1072.7	2.81	1.96	0.0072	0.0	0	0	12.5	113.72	2717	252.3	132.9
13:34	1072.7	2.82	1.96	0.0072	0.0	0	0	12.4	113.81	2719.3	252.2	132.8
13:35	1072.7	2.78	1.93	0.0071	0.0	0	0	12.4	113.73	2717	251.9	132.7
Average	1072.6	2.8	1.9	0.0071	0.0	0.0	0.0	12.4	113.9	2721.8	252.4	132.9

Run 7	HHV	ppm							Fuel	Heat	Steam	
	Gas	75-NOx	@15%	75-NOx	CO	CO	CO	75-O2%	Flow	Input	CT	Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr		klb/hr	Total	Megawa	Megawa
	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min		1-Min	1-Min	tts 1-Min	tts 1-Min
14:20	1072.4	2.68	1.87	0.0069	0.0	0	0	12.5	113.82	2718.6	251.4	132.9
14:21	1072.4	2.67	1.86	0.0069	0.0	0	0	12.4	113.73	2716.3	251.7	132.8
14:22	1072.4	2.68	1.87	0.0069	0.0	0	0	12.5	113.72	2716.3	251.7	132.9
14:23	1072.3	2.66	1.86	0.0069	0.0	0	0	12.5	113.91	2720.9	252.1	132.8
14:24	1072.3	2.67	1.86	0.0069	0.0	0	0	12.5	113.71	2716	251.1	132.8
14:25	1072.3	2.7	1.88	0.0069	0.0	0	0	12.4	113.63	2713.7	251.2	132.8
14:26	1072.3	2.69	1.88	0.0069	0.0	0	0	12.4	113.82	2718.4	251.7	132.7
14:27	1072.3	2.66	1.86	0.0069	0.0	0	0	12.5	113.81	2718.4	251.9	132.8
14:28	1072.3	2.68	1.87	0.0069	0.0	0	0	12.5	113.71	2716	251.7	132.8
14:29	1072.3	2.71	1.89	0.0070	0.0	0	0	12.4	113.83	2718.4	251.5	132.8
14:30	1072.3	2.7	1.89	0.0070	0.0	0	0	12.5	113.93	2720.9	251.7	132.7
14:31	1072.3	2.69	1.87	0.0069	0.0	0	0	12.4	113.62	2713.7	251.4	132.8
14:32	1072.3	2.68	1.87	0.0069	0.0	0	0	12.4	113.81	2718.4	251.8	132.8
14:33	1072.3	2.69	1.88	0.0069	0.0	0	0	12.5	113.92	2720.9	251.5	132.8
14:34	1072.3	2.71	1.89	0.0070	0.0	0	0	12.4	113.83	2718.4	251.9	132.8
14:35	1072.3	2.74	1.91	0.0070	0.0	0	0	12.4	113.71	2716	251.8	132.9
14:36	1072.3	2.74	1.91	0.0070	0.0	0	0	12.4	113.71	2716	251.8	132.9
14:37	1072.3	2.75	1.92	0.0071	0.0	0	0	12.5	113.52	2711.3	251.7	132.9
14:38	1072.3	2.74	1.91	0.0070	0.1	0.0	0.3	12.5	113.63	2713.7	251.6	132.9
14:39	1072.3	2.74	1.91	0.0070	0.0	0	0	12.4	113.32	2706.5	251	132.9
14:40	1072.3	2.72	1.9	0.0070	0.0	0	0	12.5	113.71	2716	251.9	132.8
Average	1072.3	2.7	1.9	0.0069	0.0	0.0	0.0	12.4	113.7	2716.4	251.6	132.8

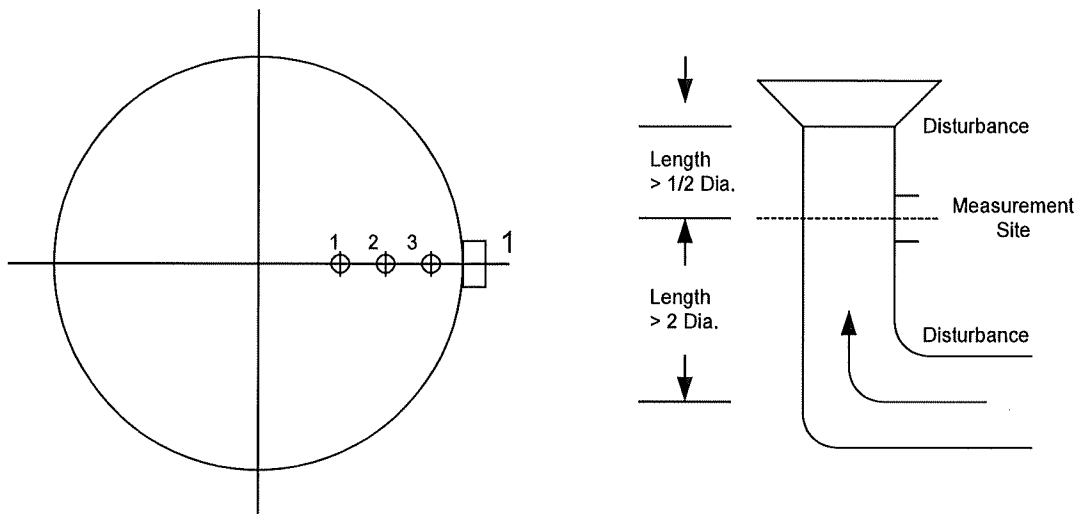
Run 8	HHV	ppm							Fuel	Heat	Steam	
	Gas	75-NOx	@15%	75-NOx	CO	CO	CO	75-O2%	Flow	Input	CT	Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr		klb/hr	Total	Megawa	Megawa
	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min		1-Min	1-Min	tts 1-Min	tts 1-Min
14:55	1072.5	2.72	1.89	0.0070	0.0	0	0	12.4	113.83	2718.9	251.7	132.8
14:56	1072.5	2.74	1.91	0.0070	0.0	0	0	12.4	113.41	2709.3	251	132.7
14:57	1072.5	2.75	1.92	0.0071	0.0	0	0	12.5	113.41	2709.3	251.4	132.6
14:58	1072.5	2.73	1.9	0.0070	0.0	0	0	12.4	113.52	2711.8	251.4	132.6
14:59	1072.5	2.72	1.89	0.0070	0.0	0	0	12.4	113.43	2709.3	251.4	132.7
15:00	1072.5	2.72	1.9	0.0070	0.0	0	0	12.5	113.42	2709.3	251.3	132.7
15:01	1072.5	2.71	1.89	0.0069	0.0	0	0	12.4	113.82	2718.9	251.7	132.8
15:02	1072.5	2.72	1.9	0.0070	0.0	0	0	12.4	113.62	2714.1	251.5	132.9
15:03	1072.5	2.73	1.91	0.0070	0.0	0	0	12.5	113.83	2718.9	251.8	132.9
15:04	1072.5	2.76	1.92	0.0071	0.0	0.0001	0.27	12.4	113.52	2711.8	251.2	132.8
15:05	1072.5	2.76	1.93	0.0071	0.0	0	0	12.5	113.61	2714.1	251.5	132.8
15:06	1072.5	2.73	1.9	0.0070	0.0	0	0	12.4	113.81	2718.9	251.9	132.8
15:07	1072.5	2.71	1.89	0.0070	0.0	0	0	12.4	113.53	2711.8	251	132.7
15:08	1072.5	2.73	1.91	0.0070	0.0	0	0	12.5	113.72	2716.5	251.7	132.7
15:09	1072.5	2.71	1.89	0.0070	0.0	0	0	12.4	113.91	2721.3	252.2	132.7
15:10	1072.5	2.72	1.9	0.0070	0.0	0	0	12.5	113.61	2714.1	251.3	132.8
15:11	1072.4	2.73	1.91	0.0070	0.0	0	0	12.5	113.73	2716.3	251.8	132.7
15:12	1072.4	2.74	1.91	0.0070	0.0	0	0	12.4	113.32	2706.7	250.8	132.7
15:13	1072.4	2.72	1.89	0.0070	0.0	0	0	12.4	113.32	2706.7	250.8	132.7
15:14	1072.4	2.69	1.88	0.0069	0.0	0	0	12.4	113.51	2711.5	251.3	132.7
15:15	1072.4	2.63	1.84	0.0068	0.0	0	0	12.5	113.42	2709.1	251.6	132.7
Average	1072.5	2.7	1.9	0.0070	0.0	0.0	0.0	12.4	113.6	2713.3	251.4	132.7

Run 9	HHV	75-NOx	ppm	75-NOx	CO	CO	CO	75-O2%	Fuel	Heat	CT	Steam
	Gas		@15%						Flow	Input		Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	1-Min	klb/hr	Total	Megawatts	Megawatts
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min	1-Min	1-Min	1-Min	1-Min
15:30	1072.2	2.68	1.87	0.0069	0.0	0	0	12.5	113.72	2715.8	251.8	132.7
15:31	1072.2	2.7	1.88	0.0069	0.0	0	0	12.4	113.51	2711.1	251.6	132.9
15:32	1072.2	2.72	1.89	0.0070	0.0	0	0	12.4	113.52	2711.1	251.3	132.7
15:33	1072.2	2.75	1.92	0.0071	0.0	0	0	12.5	113.63	2713.4	251	132.8
15:34	1072.2	2.73	1.9	0.0070	0.0	0	0	12.4	113.52	2711.1	251.5	132.7
15:35	1072.2	2.7	1.89	0.0070	0.1	0.0001	0.27	12.5	113.71	2715.8	251.7	132.7
15:36	1072.2	2.7	1.89	0.0070	0.1	0.0001	0.27	12.5	113.71	2715.8	251.7	132.7
15:37	1072.2	2.7	1.88	0.0069	0.0	0	0	12.4	113.33	2706.2	251.1	132.8
15:38	1072.2	2.72	1.9	0.0070	0.1	0.0001	0.27	12.4	113.62	2713.4	251.1	132.8
15:39	1072.2	2.74	1.91	0.0070	0.0	0	0	12.4	113.52	2711.1	251.3	132.7
15:40	1072.2	2.73	1.9	0.0070	0.0	0	0	12.4	113.41	2708.6	251.2	132.8
15:41	1072.3	2.73	1.9	0.0070	0.0	0	0	12.4	113.22	2704.1	251	132.8
15:42	1072.3	2.72	1.9	0.0070	0.0	0	0	12.5	113.53	2711.3	251.1	132.8
15:43	1072.3	2.7	1.88	0.0069	0.0	0	0	12.4	113.72	2716	251.2	132.8
15:44	1072.3	2.7	1.88	0.0069	0.0	0	0	12.4	113.61	2713.7	251.3	132.7
15:45	1072.3	2.7	1.89	0.0070	0.0	0	0	12.5	113.42	2708.8	251.3	132.8
15:46	1072.3	2.71	1.89	0.0069	0.0	0	0	12.4	113.42	2708.8	251.5	132.8
15:47	1072.3	2.73	1.91	0.0070	0.0	0	0	12.5	113.22	2704.1	251	132.8
15:48	1072.3	2.71	1.89	0.0070	0.0	0	0	12.5	113.71	2716	252.1	132.8
15:49	1072.3	2.7	1.89	0.0069	0.0	0	0	12.5	113.51	2711.3	251.7	132.8
15:50	1072.3	2.72	1.89	0.0070	0.0	0	0	12.4	113.52	2711.3	251.4	132.8
Average	1072.2	2.7	1.9	0.0070	0.0	0.0	0.0	12.4	113.5	2711.4	251.4	132.8

Run 10	HHV	75-NOx	ppm	75-NOx	CO	CO	CO	75-O2%	Fuel	Heat	CT	Steam
	Gas		@15%						Flow	Input		Turbine
	Btu/scf	ppm	O2	lb/mmBtu	ppm	lb/mmBtu	lb/hr	1-Min	klb/hr	Total	Megawatts	Megawatts
Minute	1-Min	1-Min	1-Min	u 1-Min	1-Min	u 1-Min	1-Min	1-Min	1-Min	1-Min	1-Min	1-Min
16:20	1072.1	2.72	1.9	0.0070	0.0	0	0	12.4	113.21	2703.7	250.8	132.7
16:21	1072.1	2.71	1.89	0.0070	0.0	0	0	12.4	113.21	2703.7	251.2	132.7
16:22	1072.1	2.67	1.86	0.0069	0.0	0	0	12.4	113.62	2713.2	251.6	132.6
16:23	1072.2	2.65	1.85	0.0068	0.0	0	0	12.4	113.32	2706.2	251	132.7
16:24	1072.2	2.68	1.87	0.0069	0.0	0	0	12.4	113.42	2708.6	251.3	132.7
16:25	1072.2	2.69	1.88	0.0069	0.0	0	0	12.5	113.71	2715.8	251.4	132.6
16:26	1072.2	2.68	1.87	0.0069	0.0	0	0	12.4	113.6	2712.4	251.1	132.7
16:27	1072.2	2.71	1.89	0.0070	0.0	0	0	12.5	113.42	2708.6	250.9	132.7
16:28	1072.2	2.7	1.88	0.0069	0.0	0	0	12.4	113.42	2708.6	251.4	132.7
16:29	1072.2	2.66	1.85	0.0068	0.0	0	0	12.4	113.51	2711.1	251.4	132.8
16:30	1072.2	2.68	1.86	0.0069	0.0	0	0	12.4	113.51	2711.1	251.6	132.9
16:31	1072.2	2.7	1.88	0.0069	0.0	0	0	12.4	113.61	2713.4	251.5	132.9
16:32	1072.2	2.7	1.88	0.0069	0.0	0	0	12.4	113.42	2708.6	251	132.8
16:33	1072.2	2.69	1.88	0.0069	0.0	0	0	12.4	113.51	2711.1	251.3	132.7
16:34	1072.2	2.68	1.87	0.0069	0.0	0	0	12.4	113.6	2712.4	251.5	132.8
16:35	1072.3	2.68	1.87	0.0069	0.0	0	0	12.5	113.51	2711.3	251.2	132.8
16:36	1072.3	2.68	1.87	0.0069	0.0	0	0	12.5	113.51	2711.3	251.2	132.8
16:37	1072.3	2.7	1.88	0.0069	0.0	0	0	12.4	113.51	2711.3	251.3	132.8
16:38	1072.3	2.7	1.88	0.0069	0.0	0	0	12.4	113.61	2713.7	251.3	132.8
16:39	1072.3	2.69	1.87	0.0069	0.0	0	0	12.4	113.5	2710.3	251.4	132.7
16:40	1072.3	2.69	1.88	0.0069	0.0	0	0	12.4	113.4	2707.8	251.1	132.7
Average	1072.2	2.7	1.9	0.0069	0.0	0.0	0.0	12.4	113.5	2710.2	251.3	132.7

Appendix B - Test Section Diagram

GASEOUS TRAVERSE FOR ROUND DUCTS



Job: New Covert Generating Company, LLC
New Covert Generating Facility
Covert, Michigan

Date: October 29, 2021

Test Location: Unit 002 Stack

Stack Diameter: 22.083 Feet

Stack Area: 383.02 Square Feet

Upstream Disturbance: 240 Inches (0.91 diameters)

Downstream Disturbance: 1,020 Inches (3.85 diameters)

No. Sample Points: 3

Port Length: 12 Inches

Distance from Inside Wall
To Traverse Point:

1. 2.3 Meters
2. 1.5 Meters
3. 0.7 Meters

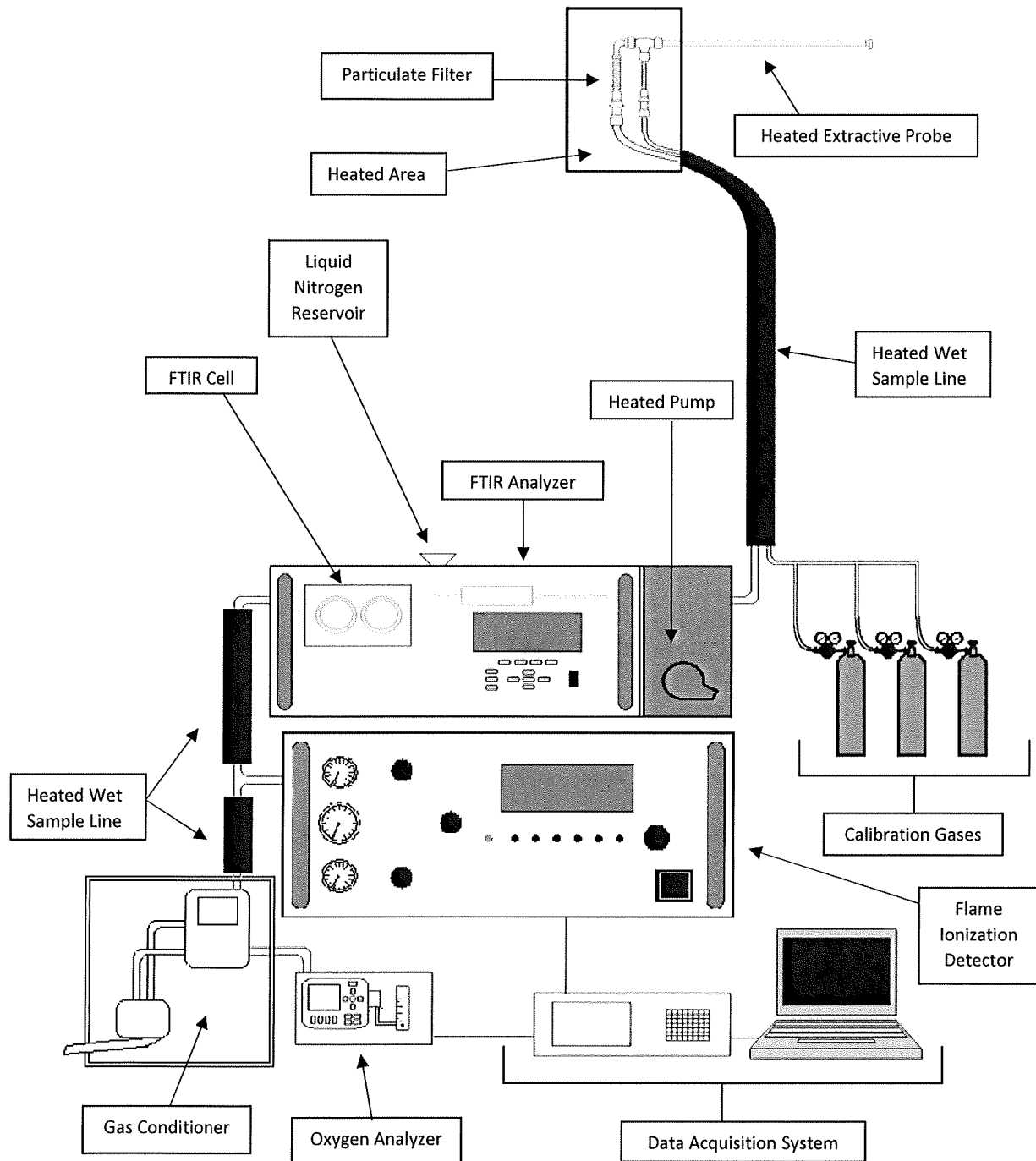
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AIR QUALITY DIVISION

Appendix C - Sample Train Diagram

USEPA Methods 3A, 25A, and 320 – Sample Train Diagram



Appendix D - Calculation Nomenclature and Formulas