

Relative Accuracy Test Audit Report

Consumers Energy Covert Generating Station Unit 003 Covert, Michigan September 15, 2023

Report Submittal Date November 3, 2023

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Project No. M233711C

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



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1.0 EXECUTIVE SUMMARY

Mostardi Platt conducted a Continuous Emissions Monitoring System (CEMS) Relative Accuracy Test Audit (RATA) test program for Consumers Energy at the Covert Generating Station in Covert, Michigan, on Unit 003 on September 15, 2023. This report summarizes the results of the test program and test methods used in accordance with the Mostardi Platt Protocol P233711 submitted to MDEQ on July 21, 2023. Mostardi Platt is a self-certified air emissions testing body (AETB). A copy of Mostardi Platt's self-certification can be found in Appendix A.

The test location, test date, and test parameters are summarized below.

	TEST INFORMATION	
Test Location	Test Date	Test Parameters
Unit 003 Stack	September 15, 2023	Carbon Monoxide (CO), Oxygen (O ₂), and Nitrogen Oxides (NO _x)

The purpose of the test program was to demonstrate the relative accuracies of the Unit 001 CO, O_2 , and NO_X analyzers during the specified operating condition. The test results from this test program indicate that each CEMS component meets the United States Environmental Protection Agency (USEPA) annual performance specification for relative accuracy as published in 40 Code of Federal Regulations Part 75 (40CFR75) and 40 Code of Federal Regulations Part 60 (40CFR 60).

	RATA RESULTS								
Test Location Date		Parameter	Units	Relative Accuracy Acceptance Criteria	Relative Accuracy (RA)	Bias Adjustment Factor (BAF)			
		со	ppmvd	+/- 5 ppmvd + cc mean difference	0.40 ppm mean difference + confidence coefficient	N/A			
Unit 003 Stack	9/15/22	NOx	lb/mmBtu	\leq 7.5 % of the mean reference method value	0.00%	1.00			
		NOx	ppmvd @ 15 % O2	<u>< 20 % of the mean</u> reference value	5.36%	N/A			
		O ₂	% dry	≤ 7.5 % of the mean reference value	1.47%	N/A			

	GAS CYLINDER INFORMATION						
Parameter	Gas Vendor	Cylinder Serial Number	Cylinder Value	Expiration Date			
NOx	Airgas	CC101641	0.00 ppm	12/20/2030			
NOx	Airgas	CC403273	25.21 ppm	8/15/2026			
NOx	Airgas	EB0066342	45.41 ppm	3/15/2026			
O2	Airgas	EB0058865	0.00 %	4/22/2025			
O ₂	Airgas	SG9125104BAL	9.976%	8/9/2031			
O ₂	Airgas	CC432067	19.01%	12/20/2030			
CO	Airgas	EB0058865	0.00 ppm	4/22/2025			
СО	Airgas	CC101641	10.31 ppm	12/20/2030			
CO	Airgas	XC017604B	19.82 ppm	1/24/2030			

The gas cylinders used to perform the RATA are summarized below.

No deviations, additions, or exclusions from the test protocol, test methods, the Mostardi Platt Quality Manual, or the ASTM D7036-12 occurred. The specific test conditions encountered did not interfere with the collection of the data.

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

	TEST PERSONNEL INFORMATION					
Location	Address	Contact				
Test Facility	Consumers Energy Covert Generating Station 26000 77 th Street Covert, Michigan 49043	Chris Head Operations Manager (269) 764-3805 (phone) chris.head@cmsenergy.com				
Testing Company Supervisor	Mostardi Platt 888 Industrial Drive Elmhurst, Illinois 60126	Damian Panek 630-993-2100 (phone) dpanek@mp-mail.com QI Group V (certified on 1/19/2021)				
Testing Company Personnel		Ryan Gartner Test Engineer				

A copy of the QI certification for test personnel is included in Appendix B.

2.0 TEST METHODOLOGY

Emission testing was conducted following the United States Environmental Protection Agency (USEPA) methods specified in 40CFR75 and 40CFR60, Appendix A, in addition to the Mostardi Platt Quality Manual and the Mostardi Platt test protocol. Schematics of the test section diagram and sampling train used are included in Appendix C and D respectively. Calculation and nomenclature are included in Appendix E. Copies of analyzer print-outs for each test run are included in Appendix F. CEM data and process data as provided by Consumer's Energy are included in Appendix G.

The following methodologies were used during the test program:

Method 3A Oxygen (O₂) Determination

Stack gas O₂ concentrations were determined in accordance with USEPA Method 3A, 40CFR60, Appendix A. A Servomex analyzer was used to determine the O₂ concentrations in the manner specified in the Method. The instrument has a paramagnetic detector and the O₂ operates in the nominal range of 0% to 25% with the specific range determined by the high-level calibration gas. High-range calibrations were performed using USEPA Protocol gas. Zero nitrogen (a low ppm pollutant in balance nitrogen calibration gases) was introduced during other instrument calibrations to check instrument zero. High- and a mid-range % O₂ levels in balance nitrogen were also introduced. Zero and mid-range calibrations were performed using USEPA Protocol gas after each test run. Copies of the gas cylinder certifications are found in Appendix J. This testing met the performance specifications as outlined in the Method.

Method 7E Nitrogen Oxides (NO_x) Determination

Stack gas NO_x concentrations and emission rates were determined in accordance with USEPA Method 7E, 40CFR60, Appendix A. A Thermo Scientific Model 42i-HL Chemiluminescence Nitrogen Oxides Analyzer was used to determine NOx concentrations, in the manner specified in the Method. The instrument operated in the nominal range of 0 ppm to 100 ppm with the specific range determined by the high-level span calibration gas of 45.41 ppm.

The Model 42i-HL is based on the principle that nitric oxide (NO) and ozone (O₃) react to produce a characteristic luminescence with an intensity linearly proportional to the NO concentration. Infrared light emission results when electronically excited nitrogen dioxide (NO₂) molecules decay to lower energy states. Specifically,

 NO_2 must first be transformed into NO before it can be measured using the chemiluminescent reaction. NO_2 is converted to NO by a molybdenum NO_2 -to-NO converter heated to about 620°C. The flue gas air sample is drawn into the Model 42i-HL through the sample bulkhead. The sample flows through a particulate filter, a capillary, and then to the mode solenoid valve. The solenoid valve routes the sample either straight to the reaction chamber (NO mode) or through the NO_2 -to-NO converter and then to the reaction chamber (NO_x mode).

Dry air enters the Model 42i-HL through the dry air bulkhead, through a flow sensor, and then through a silent discharge ozonator. The ozonator generates the necessary ozone concentration needed for the chemiluminescent reaction. The ozone reacts with the NO in the ambient air sample to produce electronically excited NO₂ molecules. A photomultiplier tube (PMT) housed in a thermoelectric cooler detects the NO₂ luminescence.

The NO and NO_X concentrations calculated in the NO and NO_X modes are stored in memory. The difference between the concentrations is used to calculate the NO₂ concentration. The Model 42i outputs NO, NO₂, and NO_x concentrations to both the front panel display and the analog outputs.

Stack gas was delivered to the analyzer via a Teflon® sampling line, heated to a minimum temperature of 250°F. Excess moisture in the stack gas was removed using a refrigerated condenser. The entire system was calibrated in accordance with the Method, using USEPA Protocol gases introduced at the probe, before and after each test run. This testing met the performance specifications as outlined in the Method.

A list of calibration gases used and the results of all calibration and other required quality assurance checks are found in Appendix H. Copies of the gas cylinder certifications are found in Appendix I. The NO₂ to NO converter test can be found in Appendix J. This testing met the performance specifications as outlined in the Method.

Method 10 Carbon Monoxide (CO) Determination

Stack gas CO concentrations and emission rates were determined in accordance with USEPA Method 10, 40CFR60, Appendix A. A Thermo Scientific Model 48i Gas Filter Correlation Carbon Monoxide was used to determine carbon monoxide concentrations, in the manner specified in the Method. The instrument operated in the nominal range of 0 ppm to 100 ppm with the specific range determined by the high-level span calibration gas of 19.82 ppm.

The Model 48i operates on the principle that CO absorbs infrared radiation at a wavelength of 4.6 microns. Because infrared absorption is a non-linear measurement technique, it is necessary to transform the basic analyzer signal into a linear output. The Model 48i uses an internally stored calibration curve to accurately linearize the instrument output over any range up to a concentration of 10,000 ppm. The sample is drawn into the Model 48i through the sample bulkhead. The sample flows through the optical bench. Radiation from an infrared source is chopped and then passed through a gas filter alternating between CO and N₂. The radiation then passes through a narrow bandpass interference filter and enters the optical bench where absorption by the sample gas occurs. The infrared radiation then exits the optical bench and falls on an infrared detector. The CO gas filter acts to produce a reference beam which cannot be further attenuated by CO in the sample cell. The N₂ side of the filter wheel is transparent to the infrared radiation and therefore produces a measurement beam which can be absorbed by CO in the cell. The chopped detector signal is modulated by the alternation between the two gas filters with an amplitude related to the concentration of CO in the sample cell. Other gases do not cause modulation of the detector signal since they absorb the reference and measure beams equally. Thus, the GFC system responds specifically to CO. The Model 48i outputs the CO concentration to the front panel display, the analog outputs, and also makes the data available over the serial or Ethernet connection.

Stack gas was delivered to the analyzer via a Teflon® sampling line, heated to a minimum temperature of 250°F. Excess moisture in the stack gas was removed using a refrigerated condenser. The entire system was calibrated in accordance with the Method, using USEPA protocol gases introduced at the probe, before and after each test run. A list of calibration gases used and the results of all calibration and other required quality assurance checks are found in Appendix H. Copies of the gas cylinder certifications are found in Appendix I. This testing met the performance specifications as outlined in the Method.

3.0 TEST RESULT SUMMARIES

Client: Consumers Energy Facility: Covert Generating Station Project #: M233711 Location: Unit 003 Date: 9/15/23

Test Method: 10

	C	O Moni	itor/Model:	Teledyne	e T300M		CO Serial # :	4	15	
1=accept 0=reject	Test Run	Mw	Test Date	Start Time	End Time	RM CO ppmvd	CEM CO ppmvd	(RM-CEM) Difference (di)	(RM-CEM) Difference ² (di ²)	
1	1	245	09/15/23	08:50	09:10	0.0	0.4	-0.4	0.16	
1	2	242	09/15/23	09:25	09:45	0.0	0.4	-0.4	0.16	
1	3	239	09/15/23	10:01	10:21	0.0	0.4	-0.4	0.16	
1	4	236	09/15/23	10:44	11:04	0.0	0.4	-0.4	0.16	
1	5	234	09/15/23	11:20	11:40	0.0	0.4	-0.4		
1	6	234	09/15/23	11:57	12:17	0.0	0.4	-0.4	0.16	
1	7	233	09/15/23	12:39	12:59	0.0	0.4	-0.4	0.16	
1	8	232	09/15/23	13:15	13:35	0.0	0.4	-0.4	0.16	
1	9	233	09/15/23	13:52	14:12	14:12	0.0	0.4	-0.4	0.16
0	10	233	09/15/23	14:36	14:56	0.0	0.4	-0.4	0.16	
		_			n		9			
					t(0.975)	2.3	306			
			Mean Re	ference Me	thod Value	0.	000	RM avg		
				Mean	CEM Value	0.400		CEM avg		
				Sum of	Differences	-3.	.600	di		
				Mean	Difference	-0.	.400	d		
			Sum	of Differenc	es Squared	1.440		di ²		
				Standar	d Deviation	0.	000	sd		
	(Confid	ence Coeff	icient 2.5% I	Error (1-tail)	0.	000	cc		
			R	elative Acci	uracy - APS	0	.40	ppm + cc d	lifferenceA	

^A Relative accuracy based upon alternate performance standard of +/- 5 ppm CO plus the confidence coefficient.

Client: Consumers Energy Facility: Covert Generating Station Project #: M233711

Fuel Type: Natural Gas						Fuel Factor:	8710		
				O2 base CEM	d NOx Ib/m Analyzer In	nmBtu RAT	A		
NO _x Monitor/Model:				Teledyne	e T200M		NO _x Serial # :	7	83
	0	2 Moni	tor/Model:	Teledyne	e T300M		O2 Serial # :	4	15
1=accept 0=reject	Test Run	Mw	Test Date	Start Time	End Time	RM NO _x Ib/MMBtu	CEM NO _x Ib/MMBtu	(RM-CEM) (RM-CEM) Difference Difference ² (di) (di ²)	
1	1	245	09/15/23	08:50	09:10	0.006	0.006	0.000	0.000000
1	2	242	09/15/23	09:25	09:45	0.007	0.007	0.000	0.000000
1	3	239	09/15/23	10:01	10:21	0.007	0.007	0.000	0.000000
1	4	236	09/15/23	10:44	11:04	0.007	0.007	0.000	0.000000
1	5	234	09/15/23	11:20	11:40	0.007	0.007	0.000	0.000000
1	6	234	09/15/23	11:57	12:17	0.007	0.007	0.000	0.000000
1	7	233	09/15/23	12:39	12:59	0.007	0.007	0.000	0.000000
1	8	232	09/15/23	13:15	13:35	0.007	0.007	0.000	0.000000
1	9	233	09/15/23	13:52	14:12	0.007	0.007	0.000	0.000000
0	10	233	09/15/23	14:36	14:56	0.007	0.007	0.000	0.000000
					n		9		
					t(0.025)	2.3	306		
			Mean Re	eference Me	thod Value	0.	007	RM avg	
				Mean	CEM Value	0.	007	CEM avg	
				Sum of	Differences	0.	000	di	
Mean Difference				Difference	0.	000	d		
			Sum	of Difference	es Squared	0.	000	di ²	
				Standar	d Deviation	0.	000	sd	
		Confide	ence Coeff	icient 2.5% I	Error (1-tail)	0.	000	CC	
				Relativ	e Accuracy	0.	.00	RA	
			1	Bias Adjustr	nent Factor	1.	000	BAF	

Test Method: 7E, 3A

Location: Unit 003 Date: 9/15/23

Client: Facility: Project #:	Consur Covert	ners Er Genera	nergy ting Station			Location: Date: Test Method:	Unit 003 9/15/23 7E_3A		
				NOx pp CEM	mvd @ 1 Analyzer l	5% O2 RATA	4		
	NC	o _x Mon	itor/Model:	Teledyn	e T200M		NO _x Serial # :	7	'83
	C	D ₂ Mon	itor/Model:	Teledyn	e T300M		O2 Serial # :	4	15
1=accept 0=reject	Test Run	Mw	Test Date	Start Time	End Time	RM NOx ppmvd @ 15 %O2	CEM NOx ppmvd @ 15 %O2	(RM-CEM) Difference (di)	(RM-CEM) Difference (di ²)
1	1	245	09/15/23	08:50	09:10	1.6	1.5	0.1	0.01
1	2	242	09/15/23	09:25	09:45	1.9	1.8	0.1	0.01
1	3	239	09/15/23	10:01	10:21	1.9	1.8	0.1	0.01
1	4	236	09/15/23	10:44	11:04	1.9	1.8	0.1	0.01
1	5	234	09/15/23	11:20	11:40	1.9	1.8	0.1	0.01
1	6	234	09/15/23	11:57	12:17	1.9	1.8	0.1	0.01
1	7	233	09/15/23	12:39	12:59	1.9	1.8	0.1	0.01
1	8	232	09/15/23	13:15	13:35	1.9	1.8	0.1	0.01
0	9	233	09/15/23	13:52	14:12	2.0	1.8	0.2	0.04
1	10	233	09/15/23	14:36	14:56	1.9	1.8	0.1	0.01
					n		9		
					t(0.975)	2.3	306		_
			Mean Re	ference Me	thod Value	1.8	367	RM avg	
				Mean	CEM Value	1.3	767	CEM avg	
				Sum of	Differences	0.9	900	di	
				Mean	Difference	0.1	100	d	
			Sum	of Difference	es Squared	0.0	090	di ²	
				Standar	d Deviation	0.0	000	sd	
	(Confide	ence Coeffi	icient 2.5% I	Error (1-tail)	0.0	000	cc	
				Relativ	e Accuracy	5.	36	RA	

NOV 20 2023

AIR QUALITY DIVISION

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Client	Canaun					1	11.11.000		
chent:	Consun	ners Er	lergy			Location:	Unit 003		
Facility:	Covert	Genera	ting Station	1		Date:	9/15/23		
Project #:	M2337	11				Test Method:	3A		
				($D_2 \% (dry)$	RATA			
				CEN	Analyzer l	nformation			
	0	Monit	or/Model:	Teledyne	e T300M		O2 Serial # :	4	15
									(RM-CEM)
1=accept	Test	Mar	Test	Start Time	End Time	RM O2 %	CEM O ₂ %	(RIVI-CEIVI)	Difference ²
0=reject	Run	IVIVV	Date	Start Time	End time	(dry)	(dry)	Difference	Difference
								(ai)	(di²)
1	1	245	09/15/23	08:50	09:10	12.5	12.4	0.1	0.01
1	2	242	09/15/23	09:25	09:45	12.5	12.4	0.1	0.01
1	3	239	09/15/23	10:01	10:21	12.5	12.4	0.1	0.01
1	4	236	09/15/23	10:44	11:04	12.6	12.4	0.2	0.04
1	5	234	09/15/23	11:20	11:40	12.6	12.4	0.2	0.04
1	6	234	09/15/23	11:57	12:17	12.6	12.4	0.2	0.04
1	7	233	09/15/23	12:39	12:59	12.6	12.4	0.2	0.04
1	8	232	09/15/23	13:15	13:35	12.5	12.4	0.1	0.01
1	9	233	09/15/23	13:52	14:12	12.5	12.4	0.1	0.01
0	10	233	09/15/23	14:36	14:56	12.6	12.4	0.2	0.04
					n	9	9		
					t(0.025)	2.3	306		
			Mean Re	ference Me	thod Value	12.	544	RM avg	
				Mean	CEM Value	12.	400	CEM avg	
	_	_		Sum of	Differences	1.	300	di	
				Mean	Difference	0.1	144	d	_
			Sum	of Difference	es Squared	0.1	210	di ²	
				Standar	d Deviation	0.	053	sd	
	C	onfide	nce Coeff	icient 2.5% E	Error (1-tail)	0.	041	CC	
				Relativ	e Accuracy	1.	47	RA	

4.0 CERTIFICATION

Mostardi Platt is pleased to have been of service to Consumers Energy. If you have any questions regarding this test report, please do not hesitate to contact us at 630-993-2100.

As the program 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. The test program was performed in accordance with the test protocol, test methods, the Mostardi Platt Quality Manual, and the ASTM D7036-12, as applicable.

MOSTARDI PLATT

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Program Manager

Damian P. Panek

Berginian W A Col

Benjamin W. Hendricks

Quality Assurance

APPENDICES

Appendix A - Company AETB Certification

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March 23, 2012

Effective immediately, Mostardi Platt self-certifies that all Part 75 test projects conform to the ASTM D 7036-04 Standard Practice. The following contact information is provided as required by the Standard:

Mostardi Platt 888 Industrial Drive Elmhurst, Illinois 60126

630-993-2100

tplatt@mp-mail.com

Also, attached is a list of each Qualified Individual (QI) with the type of exam (e.g., Group I, II, III IV and/or V), the date the exam was taken and the name and email address of the exam provider.

Should you have any questions or need additional information, please contact Thomas Platt, P.E. at 630-993-2683.

Approved:

Roberty, Platt

Chief Executive Officer

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

QSTI AETB Import Data

QI Last Name [REQUIRED]	QI First Name [REQUIRED]	QI Middle Initial	AETB Name [REQUIRED]	AETB Phone Number [REQUIRED]	AETB Email [REQUIRED]	Exam Date mm/dd/yyyy [REQUIRED]	Exam Provider Name [REQUIRED]	Exam Provider Email [REQUIRED]	Comment
urton	Stuart	L	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
arlisle	Robert	W	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/8/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
olangelo	Nicholas	C	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/1/2019	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
oleman	Paul	F	Mostard Platt	630-993-2100	tplatt@mp-mail.com	3/15/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
rivlare	Jeffrey	M	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
hlers	Eric	L	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/17/2018	Source Evaluation Society	astiprogram@gmail.com	Group V (Part 75)
Idridge	Christopher	S	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/18/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
iross	Jeffrey	M	Mostard Platt	630-993-2100	tplatt@mp-mail.com	11/20/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
endricks	Benjamin	W	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/30/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
lowe	Jacob	W	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/17/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ensen	Christopher	E	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ones	Kyle	L	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/11/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
aschinske	Jordan	R	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/8/2021	Source Evaluation Society	gstiprogram@gmall.com	Group V (Part 75)
ossack	Daniel	3	Mostard Platt	630-993-2100	tplatt@mp-mail.com	11/11/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ukla	Joshua	R	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2019	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
pinski	Michal		Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/31/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
IcGough	Scott	W	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/27/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
anek	Damian	P	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/19/2021	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
eterson	Mark	E	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
etrovich	William	A	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/4/2022	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
uss	Timothy	E	Mostard Platt	630-993-2100	tplatt@mp-mail.com	4/8/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ands	Stuart	т	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ather	Michael	P	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/7/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
mon	Ryan	K	Mostard Platt	630-993-2100	tplatt@mp-mail.com	1/4/2018	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
ollars	Richard	J	Mostard Platt	630-993-2100	tplatt@mp-mail.com	9/9/2016	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
orce	Angelo	M	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/18/2022	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
poolstra	Ryan	N	Mostard Platt	630-993-2100	tplatt@mp-mail.com	2/7/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)
rezak	Christopher	S	Mostard Platt	630-993-2100	tplatt@mp-mail.com	4/14/2020	Source Evaluation Society	gstiprogram@gmail.com	Group V (Part 75)

9/19/2022

I

Appendix B - QI Certification(s) for Field Personnel

mostardi 🔵 platt
Qualified Individual
Damian P. Panek
Has satisfactorily completed the requirements of
ASTM D 7036 – 04, Section 8.3
Standard Practice for Competence of Air Emission Testing Bodies
Examinations provided by Source Evaluation Society: www.sesnews.org, (919) 544-6338
All Part 75 test methods, under my supervision, shall conform to the company's Quality Manual and to this practice, in all respects.
Passed Group V on 1/19/2021
Expiration Date: 1/19/2026
Signature: Darian Parate Date: January 19, 2021
Quality Manager: Thomas B. Nott Technical Director:

Appendix C - Test Section Diagram

GASEOUS TRAVERSE FOR ROUND DUCTS





- Job: Consumers Energy Covert Generating Station Covert, Michigan
- Date: September 15, 2023
- Test Location: Unit 003 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. 2.0 Meters
- 2. 1.2 Meters
- 3. 0.4 Meters

Appendix D - Sample Train Diagram



USEPA Methods 3A, 7E, and 10 Extractive Gaseous Sampling Diagram

Appendix E - Calculation Nomenclature and Formulas