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Manufacturer: ALTERNATE HEATING
Job # G104711998

Model: SE210
Run 4

Date 9-24-21
Tech Kim SLATER

DILUTION TUNNEL PARTICULATE SAMPLER DATA

FILTER TYPE: Gelman 47mm A/E

Pre-test Weight Record		SYSTEM 1			SYSTEM 2			SYSTEM 3			Temp	Humidity
		Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number	Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number	Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number		
Date	Time	10	19	20	A	21	22	B	23	24	°F	%
9-23-21	5:45A	92.6027	3.2631	3.3608	92.4475	3.3389	3.3459	92.3325	3.3008	1.8296	82.2	30.1
9-24-21	6:30A	92.0026	3.2631	3.3007	92.4474	3.3389	3.3459	92.3325	3.3008	1.8296	82.0	30.7
NA												
NA												
NA												
NA		Total:	6.5638		Total:	6.6848		Total:	5.1304		NA	NA

Post-test Weight Record		SYSTEM 1		SYSTEM 2		SYSTEM 3		Temp	Humidity
		Probe & Housing Number	Combined Filter/gasket Number	Probe & Housing Number	Combined Filter/gasket Number	Probe & Housing Number	Combined Filter/gasket Number		
Date	Time	10	19+20	A	21+22	B	23+24	°F	%
9-24-21	2:05p	92.0030	6.5675	92.4476	6.6886	92.3326	5.1325	86.5	29.8
9-27-21	7:00A	92.0026	6.5667	92.4474	6.6875	92.3325	5.1309	74.8	43.0
9-28-21	7:20A	92.0024	6.5665	92.4474	6.6874	92.3325	5.1307	73.7	44.7
NA									
NA									
NA									

Dry Down Weight

Date	Time	P1	F1	P2	F2	P3	F3	Gr/hr	Lb/MMbtu	Btu
9-24-21	2:05p	.4	3.7	.2	3.8	.1	2.1	5.6	0.167	74,281
9-27-21	7:00A	0	2.9	0	2.7	0	.5	3.9	0.116	74,281
9-28-21	7:20A	0	2.7	0	2.6	0	.3	3.7	0.110	74,281
NA										
NA										
NA										

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Pre/Post Checks

Moisture Meter Calibration Check:

Time: 6:30A	X: ✓	Y: ✓	12: ✓	22: ✓

	Pre-Test	Post-Test
Facility Conditions:		
Air Velocity	0 fpm	0 fpm
Smoke Capture Check	✓	✓
Wood Heater Conditions:		
Date Wood Heater Stack Cleaned	9-20-21	
Date Dilution Tunnel Cleaned	9-20-21	
Induced Draft Check	✓	✓
Tunnel Velocity	0.118	0.116
Pitot Leak Check:		
Side A	✓	✓
Side B	✓	✓
Temperature System:		
Ambient (65°- 90°F)		80.03 °F
Proportional Checks:		
CO Analyzer Drift Check		✓
CO_2 Analyzer Check		✓
O_2 Analyzer Check		✓
Thermocouple check		✓

Sampling Train ID Numbers:	Train 1	Train 2	Train 3
Probe	10	A	B
Filter Front	19	21	23
Filter Back	20	22	24
Filter 5G-3 (<90°F)	—	—	—

Pre-Test Scale Audit

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Scale Type	Audit Weight	Measured Weight
Platform	25.00 lbs., Class F	25.00 lbs.
Wood	10.00 lbs., Class F	10.00 lbs.
Analytical	100.000 mg, Class S	100.000 mg.

LIMITS OF WEIGHT RANGES

ANALYTICAL SCALE: .....50%-150% of dry filter weight, ± 0.1 mg
PLATFORM SCALE ..... 20%-80% of ideal test load weight, ± 0.1 lbs. or 1%
WOOD SCALE ..... 20%-80% of ideal test load weight, ± 0.1 lbs. or 1%

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SAMPLING EQUIPMENT CHECK OUT

Leakage Checks Tunnel Samplers

	SAMPLE 1		SAMPLE 2		SAMPLE 3	
Unplugged Flow Rate = .25cfm	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-test	Post Test
Vacuum (inches Hg.)	10"	10"	10"	10"	10"	10"
Final 1 minute DGM (ft^3)	0	0	0	0	0	0
Initial 1 minute DGM (ft^3)	0	0	0	0	0	0
Change (C) (ft^3)	0	0	0	0	0	0
Allowable leakage .04 x Sample rate or .02cfm	0.0100	0.0100	0.0100	0.0100	0.0100	0.0100
Check OK	✓	✓	✓	✓	✓	✓

Leakage Checks Flue Gas Sampler

Plugged Probe	Pre Test	Post Test
Vacuum (inches Hg.)	10"	10"
Rotometer Reading (mm)	0	0
Flow Rate (CFM)	0	0
Allowable (.04 x Sample Rate)	.04	.04
Check OK	✓	✓

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CONTINUOUS ANALYZERS

Pre-Test (Adjust and Record)

	ZERO		SPAN		CAL. (Record Only)	
CO_2	0	0	24.92	24.92	11.99	11.99
CO	0	0	7.76	7.748	4.01	4.00
O_2	0	0	20.89	20.89	10.00	10.01
	Actual	Should Be	Actual	Should Be	Actual	Should Be

Post Test (Record Only)

	Zero	Span	Cal.	Zero Drift	Span Drift	Cal. Drift	OK?	Not OK*
CO_2	0.02	24.79	11.94	.02	.13	.5	✓	NA
CO	-0.07	7.37	3.76	-.07	.39	.25	✓	NA
O_2	-0.01	20.79	9.92	.01	.10	.08	✓	NA

* Greater than ± 5% of the range used.

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TEST DATA LOG

RAW DRY GAS METER READINGS

	System 1	System 2	System 3
Final (ft^3)	43.55	43.54	8.51
Initial (ft^3)	0	0	0

AMBIENT CONDITIONS

	Start	End
Barometer. (inches Hg)	28.94	28.80
Ambient (°F)	82.0	86.5
Humidity (%)	30.7	29.8

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COMMENTS

6:08 AM, UNIT cleaned, Scale TARED,
78 lbs of COAL BED AND Pellet Added.
6:40 AM, UNIT STIRRED
7:05 AM, UNIT STIRRED
8:10 AM, ADDED 5 lbs of WATER,
8:29 AM, UNIT STIRRED
8:48 AM, TEST STARTED
1:54 PM, TEST complete.

TEST LOAD CONFIGURATION

NA