



OMNI-Test Laboratories, Inc.
Portland, Oregon USA
 October 9, 2012

Summary of Emissions Testing with SmartBurn


Test report #503-M-01-03
 Released October 4, 2012

OMNI-Test Laboratories performed emissions tests using an EPA Phase II certified wood stove with and without a SmartBurn catalyst in the stove. The results indicate:

- 55% lower total particulate emissions (g/kg, dry) for low burn rate tests and
- 42% lower total particulate emissions (g/kg, dry) for high burn rate tests.

Tests were conducted using a dilution tunnel with instrumentation, collection hood and test fuel specified in ASTM 2515-07, EPA Method 5G and EPA Method 28. High burn rate tests were in the range 1.40 ± 0.09 dry kg/hr and lower burn rate tests in the range 1.03 ± 0.09 dry kg/hr. The results of 14 test runs are summarized below.

Lower Burn Rate						
	Burn Rate	Emission Factor	Average	Emission Rate	Average	Reduction
	dry kg/hr	g/dry kg	g/dry kg	g/hr	g/hr	
Without SmartBurn	0.94	25.26	21.25	23.74	21.06	Emission Factor: 55% Reduction
	0.96	22.14		21.25		
	0.98	19.32		18.93		
	1.11	18.31		20.32		
With SmartBurn	0.99	10.21	9.46	10.11	9.76	Emission Rate: 54% Reduction
	0.99	8.94		8.85		
	1.12	9.22		10.33		
Higher Burn Rate						
	Burn Rate	Emission Factor	Average	Emission Rate	Average	Reduction
	dry kg/hr	g/dry kg	g/dry kg	g/hr	g/hr	
Without SmartBurn	1.35	3.96	4.02	5.34	5.60	Emission Factor: 42% Reduction
	1.36	3.90		5.31		
	1.37	4.18		5.72		
	1.49	4.03		6.01		
With SmartBurn	1.31	1.67	2.32	2.20	3.23	Emission Rate: 42% Reduction
	1.37	3.23		4.42		
	1.48	2.08		3.08		


 Jeremy Clark
 Emissions Testing Manager