COMBUSTION SYSTEM CATALYST

IMPROVE PERFORMANCE • REDUCE EMISSIONS • IMPROVE MILEAGE

Particulate Study Results

Location: Fairbanks Alaska
Technician: Dan Spillane, Arctic Technical Services
Boiler Type: System 2000 (residential)
Fuel Type: #2 heating oil
Time of Year: Mid November 2010

Test Protocol:

- Tests were run with and without the EcoSave Catalyst. Variances were recorded per below.
- A particulate meter was used at 2 µ and less.
- The high initial ash content in both sections was due to the cold start. This normalized as the boiler was run.
- Duration of each test: 1 cycle
- Ash Measured: Just above boiler

Dosage Ratio to Fuel:

- 1 to 3000 ratio
- To accelerate test, the ratio was doubled [1 to 1500] to condition the boiler. The duration was conditioning was 10 hours.

Results:

Standard Run (no EcoSave Catalyst used)

Temperature	*Parts per Million*
467.8 Fahrenheit	28548 ppm
404.2 Fahrenheit	38889 ppm
429.0 Fahrenheit	11736 ppm
438.7 Fahrenheit	32076 ppm
432.3 Fahrenheit	12474 ppm
444.5 Fahrenheit	15210 ppm
446.9 Fahrenheit	11529 ppm

EcoSave Catalyst Run

Temperature	*Parts per Million*
404.0 Fahrenheit	312858 ppm
416.4 Fahrenheit	319113 ppm
419.0 Fahrenheit	8415 ppm
412.3 Fahrenheit	104211 ppm
418.4 Fahrenheit	5400 ppm
435.2 Fahrenheit	9873 ppm
438.4 Fahrenheit	3159 ppm
440.9 Fahrenheit	4455 ppm
438.6 Fahrenheit	2034 ppm
440.7 Fahrenheit	1278 ppm

Summary of Results

1. The ash levels dropped as much as 89% per the above recorded data.
2. The ash content in the untreated section of the study remained continuously high.
3. The study with the EcoSave catalyst showed a steady decrease in ash content.

November 29, 2010