

# BOILER INSTALL REPORT

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## FITCH FUEL CATALYST

**Prepared by:**  
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**DASTEC S.R.L.**

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**Purpose:** Measure effect of Fitch Fuel Catalyst on emissions and boiler efficiency.

**Fitch Fuel Catalyst – 2 pieces Model FHD10-UL** manufactured by APSI installed by Ace-Atlas.

**Property Managers:** Newmark Knight Frank

**Boiler type:** 2 x Federal FST 350

**Oil type:** #6

**Test Personnel:** Frank Cassano

Ace-Atlas Corp

**Data:** Degree day data collected from KNYEW45, Hunter College. Fuel consumption data from buildings US Energy system. Fuel deliveries provided by NKF

### Record of Events

1. December 29, 2011

Boiler cleaned and adjusted for optimal combustion.

Fitch Catalyst installed and system operated for 30 minutes.

Baseline Emissions and efficiency data recorded.

2. January 20, 2012

Stack temperature was high yet boiler was clean so the firing rate was set back 10% to reduce stack temperature.

<b>Location Boiler #1</b>	<b>Combustion &amp; emissions measurements</b>	<b>Baseline data 12/29/2011</b>	<b>Retest 1/20/12</b>	<b>% Change</b>
	Nett temp	450	456	1.3%
	CO2 %	12.0%	13.6%	13.3%
	Efficiency %	83.3%	87.1%	4.6%
	Smoke	0	0	
<b>Location Boiler #2</b>				
	Nett temp	475	462	-2.7%
	CO2 %	11.2%	12.7%	13.4%
	Efficiency %	83.5%	85.9%	2.9%
	Smoke	0	0	
11/20/11 to 1/20/12 baseline 1/21/12 to 4/30/12 /Fitch	Gallons per degree day	13.55	11.48	-15.3%
Estimated Annual Fuel savings based on 60,000 gals /yr	9,166 gallons			

### **Conclusions – Results from Fitch Install**

1. Boiler combustion efficiency improved by 4.6 % and 2.9% respectively.

2. Firing rate reduced by 10%

3. Estimated fuel savings 9,166 gallons – Approx \$29,000

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