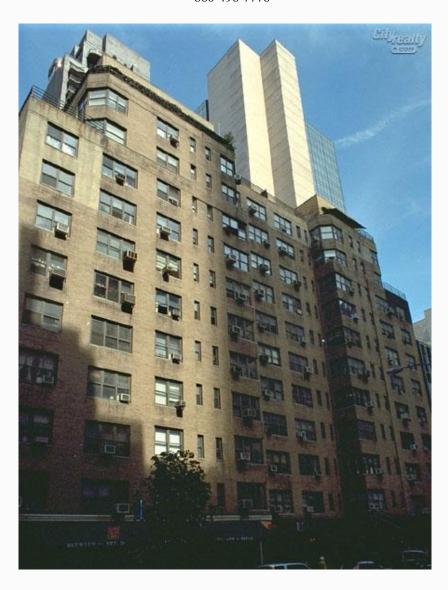
# BOILER INSTALL REPORT 141 E 56<sup>th</sup> Street, New York NY. FITCH FUEL CATALYST

## **Prepared by:**

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Dated: May 15, 2012



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

Fitch Fuel Catalyst – 1 pieces Model FHD5-UL manufactured by APSI installed by Abilene Inc.

**Property Managers**: Building Management Inc.

**Boiler type:** 1 x Federal FST 150 **Oil type:** #6

**Test Personnel:** Alec Volyand Abilene Inc.

Data: Degree day data collected from KNYEW45, Hunter College East Central Park. Fuel deliveries provided

by Building Management Inc.

### **Record of Events**

#### 1. April 11, 2011

Baseline Emissions and efficiency data recorded.

Fitch Catalyst installed and system operated for 30 minutes.

Boiler combustion efficiency recorded.

#### 2. September 13, 2011

DAR inspection found CO2 above required limits of 14% even though there was no smoke and efficiency was 88%. The boiler was adjusted accordingly with a minor loss in efficiency

Combustion & emissions measurements	Baseline data 7/05/2011	With Fitch 7/05/2011	DAR Set back CO2 9/13/11	% Change
Net stack temperature	465	447	440	-5.4%
CO2 %	12.5%	15.1%	14.0%	12.0%
Efficiency %	83.0%	88.0%	85.0%	2.4%
1/15/10 to 4/4/11 base. 11/14/11 to 5/9/12 Fitch	Gallons Per Degree day	7.11	5.76	-19.0%
Estimated gallons saved for Fitch period		3,901	At \$3.15/ gal	\$12,288
Estimated savings on annual 33,000 gallons use		6,266	At \$3.15/ gal	\$19,738

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

- 1. Boiler combustion efficiency improved by 2.4 %
- 2. Approximate cost of product/installation \$7,000
- 3. Estimated annual fuel savings 6,266 gallons Approx \$19,738 at \$3.15/ gallon
- 4. Return on investment 282%
- 5. CO2 carbon footprint reduced by 152,000 pounds



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