

# **BOILER INSTALL REPORT**

## **1150 Park Ave, New York NY.**

# **FITCH FUEL CATALYST**

**Prepared by:**

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**Dated: June 2, 2011**

**Purpose:** Measure effect of Fitch Fuel Catalyst on emissions and boiler efficiency.  
**Fitch Fuel Catalyst – 2 pieces Model FHD5-UL** manufactured by APSI installed by Marlande Heating.

**Property Managers:** Brown Harris Stevens  
**Location:** 1150 Park Ave, NY  
**Boiler type:** 2 x NATIONAL OB 793                      **Oil type:** #6  
**Test Personnel:** Bob Horstmann,                      Marlande Heating Corp

**Record of Events**

1. March 5, 2010  
 Boiler cleaned and adjusted for optimal combustion.  
 Fitch Catalyst installed and system operated for 30 minutes.  
 Emissions and efficiency data recorded.
  
2. Feb 23, 2011  
 Firing rate was set back 15% to reduce stack temperature.

	<b>Combustion &amp; emissions measurements</b>	<b>Baseline data 3/5/10</b>	<b>Retest 2/23/11</b>	<b>% Change</b>
<b>Boiler #1</b>	Efficiency %	82.1%	83.7%	1.9%
	Smoke	1	0	-100.0%
<b>Boiler #2</b>	Efficiency %	85.0%	86.9%	2.2%
	Smoke	1	0	-100.0%
11/19/09 to 4/17/10 vs. 11/22/10 to 4/9/11	Avg. Gal/Degree day	14.44	12.05	-16.6%
Estimated gallons saved			8,830	
Estimated reduced NOX	(annual 2,186)		371	lbs
Estimated reduced PM	(annual 309)		53	lbs

**Conclusions – Results from Fitch Install**

1. Boiler combustion efficiency improved by 2.0 %.
2. Smoke reduced from 1 to 0 indicating optimal combustion.
3. Degree day adjusted fuel consumption declined by 16.6%, 8,830 gallons for the period of Nov/2010 to Apr/2011 compared to Nov/2009 to Apr/2010
4. Estimated NOx reduction of 371 lbs.
5. Estimated Filterable PM reduction of 53 lbs.

