



Nous Parlons Français

Phone: (603) 588-2333

Fax: (603) 588 2333

mercierengineering@comcast.net

Media Release

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Paul D. Mercier, Sr. d-b-a Boilers On Demand LLC of Antrim, NH USA announces he has obtained a U.S. Patent 10,690,356 entitled: “[ENHANCED CONVECTION, DIFFERENTIAL TEMPERATURE MANAGED, HYDRONIC HEATING APPLIANCE](#)”. All fourteen (14) Claims therein have also been allowed sans edit.

The device is being marketed as an application-specific “[Neo-Gravity Hydronic \(FHW\) Heating Appliance™](#)”, an industry first product. This Appliance comprises over 95% the material content of a typical residential or light commercial boiler replacement, or as a new installation build component.

Key is the incorporation of natural (gravity) convection within near-boiler distribution piping delivered by a dedicated Taco® Delta-T ECM Hydronic Distribution System. Further management by an internal Hydrolevel “Fuel Smart” Aquastat® within a Weil-McLain® (very-high mass, cast-iron) UO Boiler emulates the Zero Distribution Energy Gravity Heating System of a century past. The resultant is again simple, durable and efficient hydronic heating It’s both technically and “naturally” efficient.

The hydronic heating industry is wholly component-supplier driven. There is no optimal assembly configuration defined or executed beyond a generic boiler manufacturer’s “piping diagram”. It merely defines sequential component placement and options. Thus we have a “freelance” assembly system with as many variations and results as installers. A process-optimized “Appliance” forces standardization.

Over the past decade we have developed and configured a series of Appliance “Beta Sites”. To date they have accrued over thirty (30) installed years (heating seasons) of operation without a single system-related service interruption. Further attributes such as distribution and radiation profiling efficiency enhancements and selective fail-mode heating continuity have evolved from these trials.

Our claim therefore is the most efficient (only) Hydronic (FHW) Heating Appliance to date.

We avail ourselves to you for further interest in publicizing our efforts.

Respectfully submitted,

Paul D. Mercier, Sr.

Ph/Fax: 603-588-2333

www.BoilersOnDemand.com

info@BoilersOnDemand.com

“Heating Engineers Since 1955”