

New Federal US EPA Regulations for Wood-Fired Hydronic Heaters and Forced-Air Furnaces

Summary

On February 3, 2015, the U.S. Environmental Protection Agency (EPA) signed the new federal regulation 40 CFR Part 60, Subpart QQQQ, *Standards of Performance for New Hydronic Heaters and Forced-Air Furnaces*.

Effective date of this regulation: expected early May of 2015

The rule affects wood fired units meaning devices designed to burn wood or wood pellet fuel:

- Wood-fired Central Heaters:
 - ⇒ Outdoor Wood Boilers
 - ⇒ Indoor Wood Boilers
- Wood-fired Forced-Air Furnaces

The rule includes:

- requirements for
 - ⇒ manufacturers of hydronic heaters and forced-air furnaces,
 - ⇒ manufacturers of wood pellets,
 - ⇒ sellers of all types of regulated hydronic heaters and forced-air furnaces, and
 - ⇒ owners and operators of wood-fired hydronic heaters and forced-air furnaces;
- emissions standards;
- certification processes, test methods, and reporting requirements.

Key Regulated Specifics:

1. Wood Burners Emission Limits
2. Permanent Labeling Requirements
3. Specific Fuel Requirements
4. Owner's Manuals Requirements and other Point-of Sale Materials and Training
5. Procedures for Operation of Wood Burners

Important Compliance Dates and Facts

As of the effective date of this regulation,

- **Hydronic Heaters** *manufactured* must meet the Particulate Matter emission limit of 0.32 lb/MMBtu heat output (weighted average), with a cap of 18 grams/hour for each test run.
- **Forced-Air Furnaces** must meet work practice and operational standards of the regulation.

After December 31, 2015, retailers *may not* sell any wood fired hydronic heaters such as outdoor wood boilers, indoor wood-fired central heaters, and wood-fired forced-air furnaces that do not meet the regulatory requirements.

As of March 2016 (one year after the final rule is published), **Small Forced Air Furnaces** (< 65,000 Btu/hour heat output) must meet the Particulate Matter emission limit of 0.93 lb/MMBtu heat output (weighted average), as specified by U.S. EPA.

As of March 2017 (two years after the final rule is published), **Large Forced Air Furnaces** (≥ 65,000 Btu/hour heat output) must meet the Particulate Matter emission limit of 0.93 lb/MMBtu heat output (weighted average), as specified by U.S. EPA.

As of March 2020 (five years after the final rule is published),

- **Hydronic Heaters** must meet the Particulate Matter emission limit of 0.10 lb/MMBtu heat output for each burn rate; or the alternate limit of 0.15 lb/MMBtu heat output, as specified by U.S. EPA.
- **Forced-Air Furnaces** (all sizes) must meet the Particulate Matter emission limit of 0.15 lb/MMBtu heat output, as specified by U.S. EPA.



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Manufacturers must provide:

- Model-specific descriptions of proper operation and best practices, included in the owner's manuals;
- Training for distributors on proper operation and best practices for units;
- Written and video versions of proper operation and best practices information for purchasers/operators/users of the heaters.

Owners and operators must:

- use proper burn practices for units subject to these regulations,
- operate each unit in a manner consistent with the owner's manual,
- use only the grades of pellet fuels, wood, or wood chips specified in the owner's manual, and
- not burn improper fuel.

The rule requires manufacturers to *void the warranties* in cases of improper operation, including burning of improper fuel.

These rules DO NOT:

- Regulate heaters fueled solely by gas, oil, or coal.
- Regulate **existing** wood heaters that are already in use in or at people's homes.
- Set visible emissions limits from these heaters.
- Prohibit the use of these heaters in non-heating seasons.

Regulation and Summary Documents

The regulation and summary documents are available on-line at <http://www2.epa.gov/residential-wood-heaters>.

Prohibited Fuels

- Residential or commercial garbage;
 - Lawn clippings or yard waste;
 - Materials containing rubber, including tires;
 - Materials containing plastic;
 - Waste petroleum products;
 - Paints or paint thinners;
 - Asphalt products;
 - Materials containing asbestos;
 - Construction or demolition debris;
 - Paper products, cardboard, plywood, or particleboard; *
 - Railroad ties, pressure-treated wood, or pallets;
 - Manure or animal remains;
 - Salt water driftwood or other previously salt water saturated materials;
 - **Unseasoned wood** (wood with a moisture content of 20% or more; or 35% or more for chip wood);
 - Any materials that are not included in the warranty and owner's manual for the subject wood heater; or
 - Any materials that were not included in the certification tests for the subject wood heater.
- * The regulation does not prohibit the use of fire starters made from paper, cardboard, sawdust, wax, and similar substances in an affected wood heater.

Assistance

For more information on the requirements of these federal standards or for technical assistance on any environmental regulation, please contact:

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