

# 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.



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

## 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:

Julie Churchill,  
Maine DEP Small Business Ombudsman  
Phone: 207-287-7881  
Email: [julie.m.churchill@maine.gov](mailto:julie.m.churchill@maine.gov)