§ 60.532 and 5474: What standards and requirements must I meet and by when?

- PM Emission limits
- Wood chip and pellet fuel minimum requirements
- Prohibited fuel types
- Owner’s manual must specify that operation inconsistent with owner’s manual will void the warranty
§ 60.532(f) and 60.5474(f) Prohibited fuel types. No person is permitted to burn any of the following:

- (1) Residential or commercial garbage;
- (2) Lawn clippings or yard waste;
- (3) Materials containing rubber, including tires;
- (4) Materials containing plastic;
- (5) Waste petroleum products, paints or paint thinners, or asphalt products;
- (6) Materials containing asbestos;
- (7) Construction or demolition debris;
- (8) Paper products; cardboard, plywood or particleboard. (ok for start-up)
- (9) Railroad ties or pressure treated lumber;
- (10) Manure or animal remains;
- (11) Salt water driftwood or previously salt water saturated materials;
- (12) Unseasoned wood;
- (13) Any materials not included in the warranty and owner’s manual;
- (14) Any materials that were not included in the certification tests
Owner’s Manuals Must Address: § 60.536 & 60.5478(f) and Appendix I:

- (a) Wood heater description and compliance status;
- (b) Tamper warnings;
- (c) Heater warranty and catalyst warranty (if equipped);
- (d) Fuel selection;
- (e) - (h) Detailed catalyst information
- (i) Wood heater proper operation and maintenance, including minimizing visible emissions;
- (j) Wood heater proper installation, including location, stack height and achieving proper draft;
- (k) Use of smoke detectors and carbon monoxide monitors;
- (l) Efficiency.
Hydronic heaters and FAFs

- HH and FAF manufacturers must supply a moisture meter with heaters. § 60.5480(c)(1)(ii)
- EPA Burnwise site: https://www.epa.gov/burnwise
This wood-burning appliance meets 2020 U.S. Environmental Protection Agency clean air standards.

- **Heating Area**: Heats Up To 2500 sq. ft.
- **Efficiency**: 83%
- **Smoke Emissions**: EPA Maximum Allowed: 2.5 g/hr. This model: xx g/hr

**MANUFACTURER**
Wood Stove Inc.

**MODEL NO.**
1850M

**FUEL TESTED**
- Pallets: ground wood or biomass that is compressed into a pallet.
- Crib wood: cut 2" x 4" or 4" x 4" lumber that is stapled together.
- Cord wood: typical firewood, and a better measure of how a heater will perform in homes.

For more information, refer to the Owner’s Manual and www.epa.gov/burnwise.
## Final Rule – Summary of Standards

<table>
<thead>
<tr>
<th>Wood-Fired Heating Device</th>
<th>Step</th>
<th>Effective Date *after F.R. Notice</th>
<th>Particulate Matter Emission Standard</th>
<th>Test Fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood stoves &amp; Pellet Stoves (both adjustable and single burn rate) (both catalytic &amp; non-catalytic)</td>
<td>1</td>
<td>60 days (May 15, 2015)</td>
<td>4.5 g/hr</td>
<td>Cribwood or Cordwood</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5 years (May 15, 2020)</td>
<td>2.0 g/hr</td>
<td>Cribwood</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.5 g/hr</td>
<td>Cordwood</td>
</tr>
<tr>
<td>Hydronic Heaters - all wood fuels</td>
<td>1</td>
<td>60 days (May 15, 2015)</td>
<td>0.32 lbs/MBtu weighted average AND 18.0 g/hr individual test run cap OR EPA “Phase 2” Qualified</td>
<td>Cribwood or Cordwood</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5 years (May 15, 2020)</td>
<td>0.10 lbs/MBtu for each burn rate</td>
<td>Cribwood</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.15 lbs/MBtu for each burn rate</td>
<td>Cordwood</td>
</tr>
<tr>
<td>Forced Air Furnaces – all wood fuels</td>
<td></td>
<td>60 days (May 15, 2015)</td>
<td>New work practice and operational standards, including providing information on best operating practices in owner’s manuals</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Small: 1 year (May 16, 2016) Large: 2 years (May 15, 2017)</td>
<td>0.93 lbs/MBtu weighted average</td>
<td>Cordwood</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>All: 5 years (May 15, 2020)</td>
<td>0.15 lbs/MBtu for each burn rate</td>
<td>Cordwood</td>
</tr>
</tbody>
</table>