

Wood Heaters & the EPA's NSPS

An update on the regulatory process

Joseph Seymour, BTEC, April 30, 2014

About BTEC

The Biomass Thermal Energy Council (BTEC) is the industry trade association dedicated to advancing the use of biomass for heat and other thermal energy applications.

Why was BTEC established?

- To **advocate for and promote** the biomass thermal industry in the national energy policy debate
- To **reach out to and educate** the public and decision makers on the benefits and advantages of using biomass for heat and CHP
- To **develop biomass energy research** and analysis that enables sound investment and policy decisions





What is the NSPS?

- “New Source Performance Standard”
- Promulgated by the EPA
- First established in 1988
- Originates from the Clean Air Act

What the NSPS Does

- Updates and sets emission standards and operations requirements for new wood heaters
 - Updated rules: wood stoves and pellet stoves
 - New rules: residential hydronic heaters, forced air furnaces, single burn rate stoves, and residential masonry heaters designed to burn wood
- Incorporates pellet fuel standards
 - References Pellet Fuels Institute standard or equivalent
- Incorporates cord wood for testing
 - Promotes real world operation, optional for Step I, req'd for II-III

What the NSPS Doesn't Do

- It does not affect existing residential wood heating equipment
 - Including items like existing heaters currently in use in people's homes
 - Outdoor fireplaces, pizza ovens, barbecues, fire pits, chimineas, traditional Native American bake ovens, ceremonial fires New indoor fireplaces
- It doesn't apply to heaters fueled solely by oil, gas or coal (or other non-wood materials)
- It is not a war on wood

Why Update the NSPS?

- **Long Overdue**
 - Original rule in 1988, required updating every 8 years
- **Health Impacts**
 - Est. reduction in fine particle pollution from new heaters by ~4,800 tons per year over the 2015-2022 timeframe
 - Est. monetized health benefits of >\$4 billion per year
- **Lawsuit**
 - NY, CT, MD, MA, OR, RI, VT and the Puget Sound Clean Air Agency and enviro groups
 - Update: Consent decree that the final rule be published by February 3, 2015

Regulatory Timeline

- Proposed rule unveiled in February 2014 for 90 day public comment period
 - Opportunity to submit comments and data for EPA to consider until May 5th, 2014 deadline
- A public hearing was held in Boston, MA on February 26, 2014
 - Provided glimpse of organizational, manufacturer, state, etc. stances. be held in Boston on February 26, 2014
- Final rule in 2015

Feb. 2014 – Rule published

May 5, 2014 –
Comment
period closes

Feb. 3, 2015 –
Final rule
published

Proposed Emissions Limits

TABLE 3—PROPOSED APPROACH SUBPART AAA PM EMISSIONS LIMITS

Appliance	Phases/steps	PM emissions limit
Adjustable Rate Wood Heaters or Pellet Heaters/ Stoves with current EPA certification issued prior to the effective date of the Final Rule.	Transition period from 1988 rule through the later of the effective date of the final revised rule or expiration of current certification (maximum of 5 years certification and no renewal).	4.1 g/hr for catalytic heaters/stoves and 7.5 g/hr for noncatalytic heaters/stoves.
All Other Adjustable Rate Wood Heaters, Single Burn Rate Wood Heaters or Pellet Heaters/ Stoves (includes currently certified heaters after the certification expires, catalytic and noncatalytic).	Step 1: upon the effective date of final rule Step 2: 5 years after the effective date of the final rule.	4.5 g/hr. 1.3 g/hr.

TABLE 4—ALTERNATIVE APPROACH SUBPART AAA PM EMISSIONS LIMITS

Appliance	Phases/steps	PM emissions limit
Adjustable Rate Wood Heaters or Pellet Heaters/ Stoves with Current EPA Certification Issued Prior to the effective date of Final Rule.	Transition period from 1988 rule through the later of the effective date of the final revised rule or expiration of current certification (maximum of 5 years certification and no renewal).	4.1 g/hr for catalytic heaters/stoves and 7.5 g/hr for noncatalytic heaters/stoves.
All Other Adjustable Rate Wood Heaters, Single Burn Rate Wood Heaters or Pellet Heaters/ Stoves (includes currently certified heaters after the certification expires, catalytic and noncatalytic).	Step 1: upon the effective date of final rule Step 2: 3 years after the effective date of the final rule. Step 3: 8 years after the effective date of the final rule.	4.5 g/hr. 2.5 g/hr. 1.3 g/hr.

Proposed Emissions Limits

TABLE 5—PROPOSED APPROACH SUBPART QQQQ PM EMISSIONS STANDARDS

Appliance	Steps	Particulate matter emissions limits
Residential Hydronic Heater	Step 1: Upon the effective date of the final rule	0.32 lb/MMBtu heat output and a cap of 7.5 g/hr for individual test runs.
	Step 2: 5 years after the effective date of final rule	0.06 lb/MMBtu.
Forced-Air Furnace	Step 1: Upon the effective date of the final rule	0.93 lb/MMBtu.
	Step 2: 5 years after the effective date of final rule	0.06 lb/MMBtu.

TABLE 6—ALTERNATIVE APPROACH SUBPART QQQQ PM EMISSIONS STANDARDS

Appliance	Steps	Particulate matter emissions limits
Residential Hydronic Heater	Step 1: Upon the effective date of the final rule	0.32 lb/MMBtu heat output and a cap of 7.5 g/hr for individual test runs.
	Step 2: 3 years after the effective date of final rule	0.15 lb/MMBtu.
	Step 3: 8 years after the effective date of the final rule	0.06 lb/MMBtu.
Forced-Air Furnace	Step 1: Upon the effective date of the final rule	0.93 lb/MMBtu.
	Step 2: 3 years after the effective date of final rule	0.15 lb/MMBtu.
	Step 3: 8 years after the effective date of final rule	0.06 lb/MMBtu.

Problem Points in the Proposed NSPS*

- Lack of clarity in test methods, with only 60 days to comply with new limits
- Emissions limits reached by combination of best performers and tweaking of existing EPA limits (Step II – III)
- No sell-through period for HH, unlike other categories
- Many questions on cord-wood species, moisture content, etc.

**Views representative of BTEC's Technical and Regulatory Affairs team*

A Sample of What Others are Saying



Political Responses

- 991 comments submitted as of Tuesday 5PM CT
- Congressional pressure from Sens. McCaskill (D-MO), Thune (R-SD), King (I-ME), Collins (R-ME)
- ME Governor in WSJ
- Proposed legislation (HR 4407)

It's an election year and wood is a populist issue

My Perspective

- The future of biomass heating must be cleaner
- Market forces and regulations both have roles
- If we do not become cleaner overall, we may not have markets to sell to
- Support is needed to transition users to new, high efficiency systems (i.e. BTU Act)

What You Can Do

1. Review your industry associations' position statements
2. Submit your own comments to the EPA at tinyurl.com/woodnsps by May 5
3. Tell your elected official about your support for high efficiency biomass heating technologies
4. Continue to participate throughout 2014 and 2015

Questions? Speak with me afterwards

Upcoming Events

Taking Action – Building Acceptance for Biomass HVAC

- 5/6, Washington, DC
- www.BiomassThermal.org

International Bioenergy Conference & Expo

- 6/11-6/13, Prince George, BC
- www.BioenergyConference.org/

We Are Helping Grow the Biomass Heating and CHP Market

Who BTEC Is

- Non-profit advocacy group with 130 members from U.S., Canada, Europe
- All sectors represented, from landowners to end users

Why You Should Join

- Promote the use of biomass thermal fuels and technology to all industries
- Achieve policy parity at the national and state levels
- Share best practices and drive innovation and research
- Recognition of our company's leadership and achievements

Join Us!

Membership levels tailored to a company's size. Ask me about how to join, email info@biomassthermal.org, or visit www.biomassthermal.org