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Biomass Thermal Energy Council

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Air and Radiation Docket and Information Center
Environmental Protection Agency
Mail Code: 2822T
1200 Pennsylvania Ave, NW
Washington, DC, 20460

**RE: Comments from the Biomass Thermal Energy Council Regarding EPA Docket ID No: EPA-HQ-OAR-2009-0734, Proposed NSPS Regulations - Subpart QQQQ, Residential Hydronic Heaters**

The Biomass Thermal Energy Council (BTEC) appreciates the opportunity to provide comments on the U.S. Environmental Protection Agency's proposed regulations for new residential biomass heating systems (Docket ID No: EPA-HQ-OAR-2009-0734). BTEC is a nationwide industry association representing the views of biomass feedstock producers, fuel refiners, appliance manufacturers, vendors, non-profits, state energy and environmental offices, and end users.

The EPA's proposed wood heater NSPS presents a significant update from the first iteration in the late 1980s: during that time, manufacturers both domestically and abroad have introduced advanced and efficient biomass heating technologies that dramatically reduce residential energy expenditures. This proliferation of new technologies has also seen consumers reap the additional benefits of reduced emissions and ease of operation. From 2000 to 2010, wood and pellet home heating grew by 34%, faster than any of the other heating fuels, including solar and natural gas. Residential renewable energy consumption is climbing, and wood is a preferred choice for many consumers.

BTEC seeks to advance the market for biomass thermal energy and promote the use of high-efficiency, clean-burning equipment and sustainably harvested biomass. BTEC's view is that there is a need for appropriate emission standards and air quality rules that reach the following goals:

- Achieve improved air quality both locally and globally (through reduced greenhouse gas emissions);
- Help consumers evaluate the efficiency and emissions performance of heating technologies when making a purchasing decision;
- Support the efficient use of a locally-available, cost-effective renewable energy source that displaces fossil fuels;
- Provides manufacturers of heating equipment with clear direction and a reasonable timeframe to improve existing heating technology designs that achieve the above goals.

BTEC's recommendations concern Subpart QQQQ of the proposed rule, focusing on residential hydronic heaters. These recommendations address the following issues, and detailed discussion of each item follows on the next page:

I. Timing of regulations
II. Acceptable test methods
III. Cord wood test fuels
IV. Emissions limits
V. Labeling for efficiency and performance
VI. Fuel moisture testers

These comments were reached through a detailed review of the proposed regulation and a consensus process of BTEC's Technical and Regulatory Affairs Committee. BTEC has provided support to and expects BTEC member companies to provide additional detailed comments that deal with specific technology and manufacturing concerns.

## I. Timing of Regulations

BTEC recommends that Subpart QQQQ (Residential Hydronic Heaters and Forced-Air Furnaces) be implemented in a three-step format in accordance with the schedule that has been suggested in the Federal Register announcement.

## II. Test Procedures

BTEC recommends that the Final Rule allow for inclusion of hydronic heaters that have been qualified under the EPA Phase II OWB program prior to the effective date of the Final Rule. BTEC recommends that such inclusion for any such heater shall extend to the end of the five year certification term, or to the end of the Step 1 period, whichever shall occur first.

BTEC recommends that the Final Rule also allow for inclusion of hydronic heaters that have been tested in accordance with EN 303-5. Such inclusion should be allowable for the duration of Step 1, or until the end of a 5 year period after such certification, whichever shall occur first.

BTEC recommends that the Final Rule also allow for inclusion of units tested and certified using Method 28 OWHH, Method 28 WHH-PTS[1], or ASTM 2618 prior to the publication of Final Rule. This modification would enable manufacturers to continue with product development and certification for the time being, and should be allowable for the duration of Step 1 but no later than end of the 5 year period after such certification, whichever shall occur first.

BTEC recommends that the Final Rule allow for the use of multiple test procedures as described above during Step 1, but then transition to the use of a single test procedure during Steps 2 and 3. BTEC recommends that the single test procedure either be Method 28 OWHH, Method 28 WHH-PTS or ASTM 2618 for Steps 2 and 3. Whichever method is selected for Steps 2 and 3, it should allow for (or be adapted to allow for) testing of pellet, chip, and cord wood fuel types.

## III. Fuel Type

BTEC recommends that the Final Rule require only the use of cordwood, rather than crib wood, and that the species and loading of wood shall be in accordance with manufacturer instructions.

## IV. Recommended Emission Limits

BTEC is supportive of the proposed PM emission limits of 0.32 lb/MMBtu for Step 1 and 0.15 lb/MMBtu for Step 2 for hydronic heaters.

BTEC believes, however, that the emission limit for Step 3 must be determined by EPA only after sufficient data has been obtained during Steps 1 and 2 using the single common test method to determine an appropriate final emission limit. Manufacturers expect that a boiler tested under different test methods will result in different emissions profiles due to variances in test measurement procedure. Therefore setting an emissions limit before there is a set of data from a common test method to determine an appropriate emission limit is arbitrary and unreasonable. Therefore, the final Step 3 limit should be determined based on what would be reasonable for a majority of tested boilers to achieve under the chosen common test method.

## V. Labeling for Efficiency and Performance

BTEC recommends that EPA implement a public list of manufacturers and models of hydronic heaters that show the cleanest and most efficient performance as tested under the Step 2 common test method

[1] This test method is referred to as "A Test Method for Certification of Cord Wood-Fired Hydronic Heating Appliances with Partial Thermal Storage: Measurement of Particulate Matter (PM) and Carbon Monoxide (CO) Emissions and Heating Efficiency of Wood-Fired Hydronic Heating Appliances with Partial Thermal Storage," in the EPA's proposed NSPS wood heater regulations.

BTEC recommends that the Final Rule require permanent labels that show both average weighted emissions rates plus Burn Category IV (full-load) emissions rates as tested under the Step 2 common test method.

BTEC recommends that the Final Rule require permanent labels that show thermal efficiency as tested at full load firing rates under the Step 2 common test method.
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### VI. Fuel Moisture Testers

BTEC recommends that the Final Rule not include the requirement that a wood moisture tester be provided to the customer with each hydronic heater sale. Manufacturers of hydronic heaters would be under cost-based pressure to comply with the moisture tester requirement by providing the cheapest available moisture testers. Cheaper type moisture testers are inaccurate and unreliable, and would thus not contribute effectively to cleaner operating practices.

### Closing Statement

BTEC acknowledges that despite great advances in clean burning biomass heating technology, there are a minority of legacy wood heating systems installed which are operated poorly and create excessive smoke and generate misconceptions about the biomass heating industry. In moving to introduce cleaner technology and user-friendly designs, it is important that the heating equipment manufacturing industry has a reasonable timeframe to appropriately respond with new designs without incurring excessive costs for testing and certification. BTEC's recommendations would provide that certainty.

The new NSPS rule must also have a reasonable cost of implementation so that it does not create a perverse incentive for owners of existing inefficient heating systems to keep operating them because newer, cleaner systems have become too expensive for those customers to purchase. The EPA's adoption of BTEC's aforementioned emissions limits and test methods recommendations will result in attainable initial emissions steps matched with data driven reductions in the several years post promulgation. This will assist in reducing compliance costs while simultaneously improving air quality.

Respectfully submitted,

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