

Low Mass Fireplaces
Program Update for HPBA Expo
Workshop
2/28/08

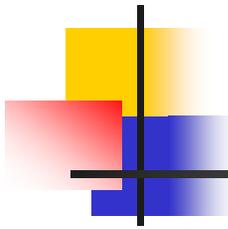


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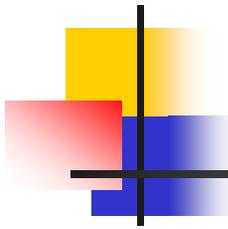
Purpose of Today's Presentation

Discuss Status:

- Voluntary Program and SIP Guidance
 - Hoping for Agreement with Stakeholders
[NESCAUM, States, Manufacturers]
 - Meeting with Manufacturers 2/29/08
 - Implications for future

PM2.5 Emissions: Efficiency Comparisons

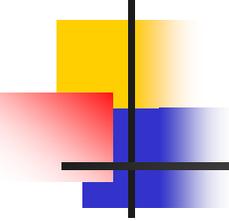
| | Grams/hour | Pounds/ton wood burned [pounds/MM BTU] | Efficiency (%) |
|---|------------------------------------|---|----------------|
| Outdoor Wood-fired Boilers (OWB) | 30-390 | 6-60 [0.5-5] | ~30-55 |
| Old Wood Stoves | 25-50 or more | ~90-150 [7.5-12.5] | ~54 |
| NSPS Wood Stoves 40CFR60 Subpart AAA | 7.5 Non-Catalytic 4.1 Catalytic | ~30 [2.5] ~16 [1.4] | ~67 |
| Pellet Stoves | ~1 | 4.2 [0.3] | ~70-80 |
| Fireplaces | | 34.6 [28] | ~10 |
| Oil-fired Furnaces | | NA [0.012] | ~90 |
| Natural Gas Furnaces | | NA [0.0075] | ~90 |



Our 2-Part Strategy

- Part 1 – EPA Voluntary Program

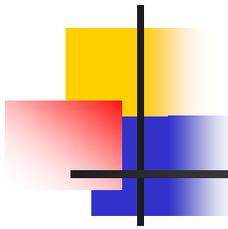
- Part 2 – SIP Guidance
 - Parts 1 and 2 are “complementary”
 - ASTM method development from 2003 to 2007
 - We kicked-off the Stakeholder Process on 5/23/07
 - We had numerous meetings, calls, and sharing of information
 - EPA decision on 1/9/08
 - EPA’s Primary Goal: Protect public health by getting manufacturers to voluntarily agree to re-design and manufacture cleaner models sooner than a Federal rule



Part 1: Voluntary Program

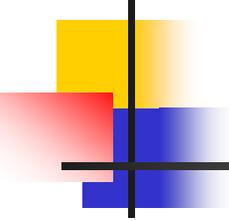
Used stakeholder process to consider mutual needs of EPA, manufacturers & States

- Phase 1: cleaner models starting as soon as available; 5.1 g/kg level equivalent to OWHH Phase 1 [70% emission reduction]
- Phase 2: TBD



Voluntary Program Components?

- Partnership Agreement between EPA and manufacturer to bring cleaner units to market?
- Text “label” on new models?
- Hang tag [orange?]
- Display/poster?
- Owner’s Manual text on proper operation and maintenance?
- EPA website with list of cleaner models?
- Tracking results



Part 2: SIP/TIP Guidance

To help States and Tribes as they develop their plans

- Will conduct dispersion modeling to determine example scenarios for attainment of NAAQS
- Will review technology and assess options for RACM and BACM
- Tentatively scheduled for Fall 2008