
Residential Wood Heaters

New Source Performance Standards (NSPS)
Current Draft Revisions

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Cook Stove Draft Options

- Exempt from 1988 NSPS
- Draft NSPS 2013: Tighter definition and labels
 - Design requirements for "North American traditional cook stove"
 - Estimates of <1000 units per year
 - Not the big "loophole" that some theorized
- We will request data for tighter emission limit such as European Prototype BAT of 3.0 g/hr or U.S. current catalyst research

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Manufactured Fireplace Draft Options

- Most exempt from 1988 NSPS via exemptions for >35:1 air-to-fuel ratio
 - Typical emissions: 12 g/kg where not regulated
- 1995 Washington State limit
 - 7.3 g/kg of wood burned
- EPA 2010 Phase 2 Voluntary Level:
 - 5.1 g/kg
 - 8 models already qualified
- Draft future revised EPA Phase 2 Voluntary Level?
 - 2.7 g/kg? (draft based on air quality modeling significance level)
- Typical California AQMD 2010 regulations:
 - Ban new construction; view potential NSPS as a weakening of restrictions
- Draft NSPS: Not include in NSPS at this time because of concerns about economy and cost-effectiveness
 - Would require new source category listing since most are not "heaters"
- Burn Wise Option: Encourage Closed Doors
 - Can meet 1 g/kg if consumers would keep the doors closed

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Site-built Fireplace Draft Options

- Most exempt from 1988 NSPS via exemptions for >35:1 air-to-fuel ratio or "open masonry fireplace constructed on-site"
 - Typical emissions: 12 g/kg where not regulated
- 1995 Washington State rule does not regulate site-built units
- We do not expect any site-built Voluntary Program Partners
- Typical California AQMD 2010 regulations:
 - Ban on new construction
- Draft NSPS: Not include in NSPS at this time and encourage certification of masons by Mason Contractors Association of America (MCAA)
 - Cost-effectiveness is questionable
 - Only 10% of fireplaces are site-built
 - Perhaps >100,000 small business masons build site-built fireplaces
 - MCAA has agreed to develop a course to be added to current certification program

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Masonry Heater Draft Options

- Exempt from 1988 NSPS via weight exemption (800 kg)
- Colorado limit: 6 g/kg (similar to ~7.5 g/hr)
- Industry request for EPA to initiate voluntary program
- Largest manufacturer and several others requested NSPS
 - Less than 1000 units constructed per year in U.S., but many more are constructed in Europe because of relatively low emissions and relatively high efficiency and marketing as "green", efficient renewable biomass heaters
- Draft NSPS 2014 level
 - 2.0 g/hr daily average, 0.32 lb /mmBTU heat output

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