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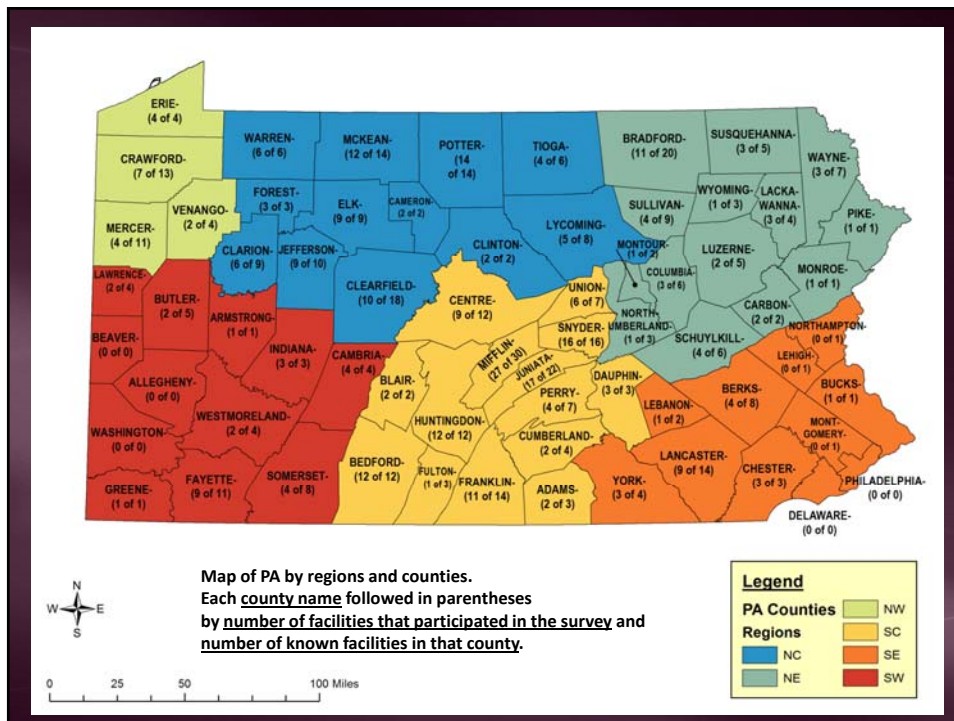
Fuels For Schools & Communities

Recommended Wood Fuel Specifications, PA Fuels for Schools and Communities

- <http://www.pafuelsforschools.psu.edu/resources/fuelstandards.asp>
- Approved for release January 2015
- Drafted by industry/equipment manufacturers
- Vetted by boiler operators

Wood Fuel Standard & Specification PA Fuels for Schools & Communities

1/15/2015 Wood Fuel Standard and Specification, PA Fuels for Schools and Communities								
	Wood Species or Type	Moisture Content (% by weight)	BTU/Energy Value as Received (per lb.)	Smallest Wood Particle Size	Largest Wood Particle Size	Contains Bark, Leaves, Twigs etc.	% Overs (oversized material)	Ash Content (% by weight)
CATEGORY A: Medium Clean Chip	>90% hardwood, "virgin wood" only	no greater than 50% (wet basis)	greater than 5000 btu per lb (HHV) as received	0.25" (max dimension), no sander dust or wood flour	not to exceed 3' x 3' x 1/2"	no	not to exceed 1% by weight	not to exceed 3%
CATEGORY B: SRWC Chip	Short rotation woody crop, "virgin wood" only	no greater than 50% (wet basis)	greater than 5000 btu per lb (HHV) as received	0.25" (max dimension), no sander dust or wood flour	not to exceed 3' x 3' x 1"	yes	not to exceed 1% by weight	not to exceed 3%
CATEGORY C: Medium Variable Chip	hardwood or softwood, "virgin wood" only	no greater than 50% (wet basis)	greater than 4500 btu per lb (HHV) as received	0.25" (max dimension), no sander dust or wood flour	not to exceed 3' x 3' x 1/2"	yes	not to exceed 5% by weight	not to exceed 5%
note: for the purpose of this spec, "hardwood" refers to higher density species of hardwoods such as oak and maple, rather than aspen, poplar, etc.								
note: fuels must not contain any dirt, rocks, or debris								
note: fuels must not contain any paint, glue, chemical treatments, or other manufactured or hazardous materials (no C/D waste)								



- 430 facilities identified to be surveyed
 - across 62 of the 67 counties in PA
- 312 businesses participated
- Statewide participant rate = 73%
- Total production reported = 185 million cubic feet
 - equivalent to 1.2 billion board feet of wood
 - 253 facilities reporting
- With a Growth Rate of 2.5% on 17 million forested acres, could have a Sustainable Annual Harvest = 12 million grn tons
- As a Reference :
 - * Early 1990's = used 6 million grn tons
 - * Early 2000's = used 2 million grn tons (PSU)
 - * 2014 TPO report = 185 mm cu ft / 33 cu ft per grn ton
= 5.6 million grn tons
(as reported by 253 mills)

- 2.0 million green tons (66.3. million cubic feet) of residues reported by 192 mills.
 - Bark, coarse and sawdust compose most of the residue volume -- at 41%, 32% and 23%
 - 39% of all residues made into mulch/soil additive -- 81% of that volume from bark
 - 16% of the reported residues used in the manufacture of fiber/composite products
 - 17% of the total residue used for animal bedding -- mostly shavings and sawdust
 - 8% of the total residue volume used for bio-energy pellets -- coarse, sawdust, and shavings
 - 160,000 grn tons