

SB 355: Air Curtain Incinerators

Senate Committee on Energy and Environment

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The problem

- Removing slash, woody fuels, and waste biomass contributes unwanted particulate emissions
- Open pile burning of woody biomass presents risks of escape that damage resources and communities
- Burning piles during winter months hampered by cold air inversions







What are air curtain incinerators?

- Mobile devices used to burn wood waste in a controlled and clean manner
- Insulated firebox, usually lined with refractory brick
- Powerful fan blows a strong curtain of air across the top of the container
 - Increases oxygen which boost combustion
 - Fan reburns smoke particles
- Results in significantly less smoke and particulate than open pile burning









Emissions reduction

--DEQ test conducted May 23, 2025

Table 1 – Particulate Matter and Carbon Monoxide

Scenario	Emission Factors				
	PM/PM2.5 (lbs./ton)	Reduction	CO (lbs./ton)	Reduction	Source
ACI Source Test	4.3 (total PM)	-	14.5	-	DEQ Source Test
Pile Burning	25.5 (PM2.5)	83.3%	179	91.9%	USFS Study
Broadcast Burning	36.0 (PM2.5)	88.2%	180	91.9%	USFS Study
Open Burning	17 (total PM)	75%	140	89.6%	AP 42
Hardwood Broadcast Burning	36 (total PM)	88.2%	224	93.5%	AP 42
Conifer Dozer Piled	12 (total PM)	64.6%	74	80.4%	AP 42



Uses

- Slash and biomass disposal
- Storm clean up
- Orchard removals
- Pest and pathogen control
 - Phyto sanitation
 - Sudden oak death
 - Emerald ash borer
 - Mediterranean oak borer



Biochar as byproduct

- Main job is clean waste removal
- Production of biochar would help stimulate market development





Thank You!

