



**Rule 4901: Wood Burning
Fireplaces and Wood Burning
Heaters**

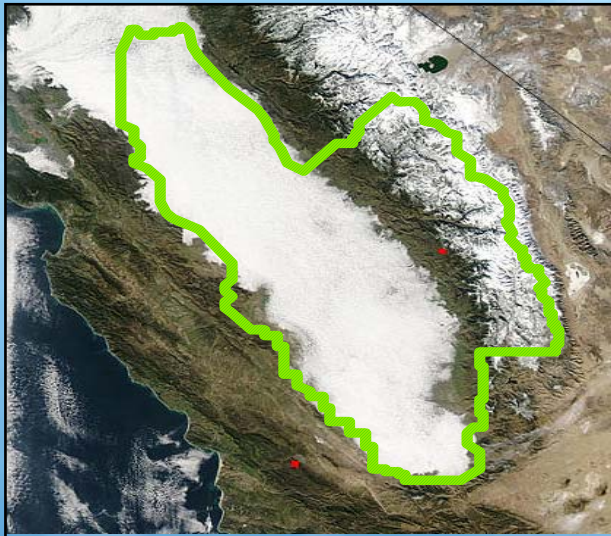
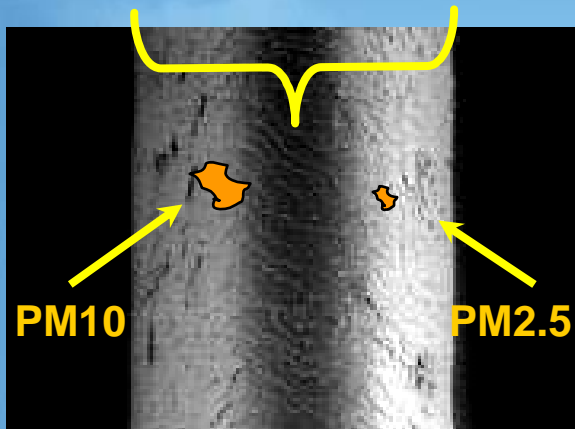
**CHECK
BEFORE YOU
BURN**

CAC, October 7, 2008

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Wintertime Air Pollution

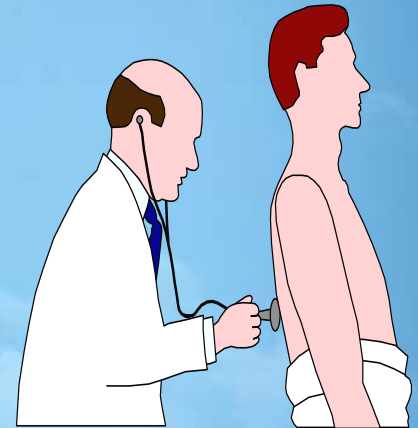
Human Hair
(60 μm diameter)



- PM10 and PM2.5
- Some PM is emitted directly, and some forms secondarily in the atmosphere
- Episodes can last several days with gradual PM buildup
- The Valley's surrounding mountains and inversion layers trap pollution

Health Effects of PM_{2.5}

- Aggravated asthma
- Irritation of the airways, coughing, difficulty breathing
- Irregular heartbeat and nonfatal heart attacks
- Chronic bronchitis
- Lung cancer
- Increased respiratory and cardiovascular hospitalizations
- Premature death in people with heart or lung disease
- Total cost to the Valley: \$3.2 billion/year



Health Effects of Wood Smoke

- Wood smoke contains:
 - PM2.5
 - Formaldehyde
 - Irritant gases
 - Known and suspected carcinogens, such as polycyclic aromatic hydrocarbons (PAH)
 - Carbon monoxide
 - Sulfur dioxide
- The toxic air pollutants in wood smoke can cause coughs, headaches, and eye and throat irritation.
- Asthma was worse in homes where wood burning stoves and fireplaces are used more often

Current Rule 4901

- “No Burn” days called when air quality is at or above 150 AQI (Air Quality Index) between November and February
- Valley counties have experienced 16 or fewer “No Burn” days per year, depending on the county
- Rule also limits installation of wood burning fire places and wood burning heaters and limits fuel types

Wood Burning Rules in California Air Districts

- Sacramento, South Coast, and Bay Area Air Districts have all adopted rules that lower the “No Burn” level to $35 \mu\text{g}/\text{m}^3$ of PM_{2.5}
 - Sacramento: Rule 421, adopted in October 2007
 - South Coast: Rule 445, adopted in March 2008
 - Bay Area: Regulation 6, Rule 3, adopted in July 2008

Why the Rule is Being Amended

- Decrease direct PM_{2.5} and PM₁₀ emissions from wood burning devices
- Contribute to continued attainment of the federal PM₁₀ standards
- Help the Valley make significant progress towards attainment of the PM_{2.5} standard as part of the strategy of the *2008 PM_{2.5} Plan*
- Result in significant public health benefits

What is Changing in the Rule?

- The “No Burn” level is being lowered

	Current Rule 4901	Proposed Amendments
24-hour average PM _{2.5} concentration	65 µg/m ³	30 µg/m ³
AQI	150	80
County	Number of “No Burn” Days per Year	
Fresno	12	48
Kern	8	43
Kings	2	13
Madera	2	12
Merced	2	12
San Joaquin	1	9
Stanislaus	9	12
Tulare	3	11

What is Changing in the Rule?

- The proposed rule amendment removes the 3,000 elevation exemption.
- Residents and businesses at all elevations would be subject to “No Burn” days unless they do not have access to natural gas service or unless they burn wood as their sole source of heat.

What is Changing in the Rule?

- Wood Burning Prohibitions will include Outdoor Wood Burning Devices, such as chimineas.
 - When air quality warrants a wood burning prohibition, residents would be asked to refrain from all wood burning, inside or outside, unless they qualify for an exemption.
- The rule amendment contains a contingency measure that would take effect if the air quality does not meet federal standards in 2015.
 - The District will track the Valley's progress towards attainment of EPA's 1997 PM_{2.5} standard and ensure that appropriate corrective actions are taken before this contingency measure takes effect.

Burn Cleanly

- Previously, the District used a three-tiered system for wood burning
- Starting this wood burning season, the District will use a two-tiered system
 - Prohibited days, or “No Burn Days”
 - “If you must burn, Burn Cleanly” days, when residents are encouraged to use the cleanest wood burning practices possible, or refrain from wood burning

“Burn Cleaner” Program



- From February – April 2008:
 - \$350 vouchers towards gas-fueled devices
 - \$168,000 replaced about 600 units
- The District is Proposing a new, two-tiered program for 2009, with \$150,000:
 - Tier one: \$750 incentives for cleaner devices
 - Tier two: will allow any Valley resident eligible for the California Low Income Energy Assistance Program (LIEAP) to receive a \$1,500 incentive to upgrade to a cleaner device

Winter HAL



- Building on the success of the Summer 2008 Healthy Air Living initiative to emphasize small changes in behavior during the winter that can result in improvements in air quality.
- Partnership with fourth and fifth grade classes to collect Healthy Air Living pledge cards.
- In addition to incorporating the wood burning messages, individual and business behavior changes such as alternative transportation will also be encouraged.

Process for Rule 4901 Amendment

- August 4 – August 21: Nine evening workshops held throughout the Valley
 - Approximately 115 attendees
- August 28: First written comment deadline
- September 5 – October 6: 30-day public comment period on revised draft
- October 16: Public hearing to adopt
- Adopted rule would take effect November 1, 2008

Comments and Questions

