

# CALIFORNIA'S BURNING SECRETS

By Rosalind Peterson

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In past years our elected officials have warned that the smoke from the burning of forests in the Amazon and elsewhere causes air pollution, climate change, destruction of our environment, drought, increasing health problems, and other maladies. We decry the decimation while sitting smugly in our own states, counties, towns, and rural communities here in the United States, pretending that smoke pollution only happens in other nations, not our own.

It will come as no surprise to our own elected officials that there is a "burning secret" in California and other states. The California EPA, the California Air Resources Board, and local county air quality districts across the United States all harbor this secret. They pretend that our air quality is improving and that our "open burning" regulations are not degrading air quality in California and other states. They also contend that "open burning", by being regulated, is safe and not posing a health hazard to the local communities exposed to this type of air pollution even when their own studies and documents prove just the opposite. And they have their "Ever-Ready Exemption Stamp" to use when special interests object.

When you visit the California EPA and the CA Air Resources Websites their press releases and studies state that smoke causes a wide variety of health effects (1). There are also studies that show that smoke produces the small particulates that have the potential to cause drought where massive local burning occurs on an ongoing basis (15+21). In California burning takes place during the fall, winter, and spring months.

California EPA and other studies show serious health declines caused by smoke. The list of contaminants and particulates is long one. The health effects listed below are a small sample of the EPA's entire list.

- A. **Childhood Allergies Exacerbated by Air Pollution March 2009 Study (2).**
- B. **October 18, 2000 CA ARB - Study Links Slow Lung Growth Rate in Children With Pollution – SACRAMENTO, CA (4).**
- C. **January 31, 2009 CA ARB - Study Links Air Pollution and Asthma – SACRAMENTO, CA (5).**
- D. **January 23, 2009 California ARG Issues Wood Burning Advisory due to Health Problems Associated With Air Pollution – CA (4)** ARB Issues Wood Burning Health Advisory - SACRAMENTO - The Air Resources Board (ARB) encourages Californians to consider alternatives to wood burning this winter..Wood smoke can harm the health of your family and your neighbors, especially children, the elderly and asthmatics. ..
  - a. "In many areas of California, wood smoke significantly degrades air quality and visibility, and can be the biggest single source of pollution, especially on still winter days. ...said ARB Chairman, Alan Lloyd.
  - b. Burning wood produces air pollutants such as carbon monoxide, nitrogen dioxide and particulate matter. (Carbon Dioxide & Mercury also smoke pollutants)
  - c. These pollutants are hazardous to the respiratory system. They can trigger asthma in sensitive individuals, and may cause chronic lung disease.
  - d. Particulate matter can be especially dangerous since, when inhaled, it can penetrate deep into the lungs where it may remain for years.

- e. Wood smoke also contains substances such as benzene, formaldehyde, and benzo-a-pyrene, which can contribute to the development of cancer and irritate the eyes and throat.

It is alleged that the Mendocino County Air Pollution Control District, as one example, has failed in recent years to give timely warnings when the air quality in various parts of Mendocino County, California may affect public health, especially in the Ukiah Valley. A few other California counties offer "Spare the Air" warnings when air pollution is unhealthy.

Some local Air Quality Districts "exempt" themselves from following state EPA guidelines whenever special interest groups protest or rewrite local rules so that burning continues even when there is a prohibition against burning. The agriculture community, for example, knows that they must wait until grapevines and cuttings are dry before burning and yet they obtain exemptions for this activity.

There are exemptions for service station pollution or allowing burning during rainy days when the materials to be burned are wet and the smokey fires will burn for days or hours. Many counties set burn hours during the day and then fail to enforce them when the burning continues after hours or all night. Many areas where burning is allowed have no water sources to put out fires if they get out of control or would smolder for days.

It is alleged that many states, counties, and cities the Air Pollution Control Districts fail to notify the local newspapers, the radio stations, local television stations about this ongoing health hazard. It is alleged that they failed to warn the public to take proper precautions except when the media or local citizens protest.

According to the CA ARB smoke can increase the number of hospital visits by children 10% and also premature deaths. According to the California State Air Resources Board (January 22, 2009), exposure to wood smoke "...may reduce lung function, may reduce the ability of blood to clot properly, and increases substances in the body that lead to cardio-vascular and pulmonary inflammation..." The CA ARB goes on to state: "...These health threats could be particularly dangerous to those with pre-existing heart or lung disease..."

"...On March 2009, the California Air Resources Board reviewed the results of a national study that linked exacerbation of childhood allergies to increased air pollution. A survey of more than 70,000 children, aged three to 17, revealed that exposure to greater amounts of ozone or particulate matter triggers more symptoms of hay fever and respiratory allergies..."

In many areas there is little interest in notifying the public or in protecting the public health by restricting this type of burning. It is also obvious that Air Quality Districts are not testing for all contaminants found in agriculture and backyard burning like Mercury or dioxin. When they test for only particulates or ozone they give themselves room to deny that there is a problem.

**The best kept secret in California is that local air quality districts derive much of their funding from burn permit fees and fines. Thus, there is little incentive to reduce pollution or eliminate pollution sources. Public health is at risk in this equation. And with more burning planned for our future the health risk increases as the coffers of many local air quality management district increases.**

Most agriculture and all backyard burning could be eliminated entirely by chipping and mulching yard and grape vine cuttings (other agriculture waste), as well. This would improve the air quality and human health in Mendocino County and other localities substantially during the fall, winter, and spring months.

The agriculture community could support clean air quality and health by "going green" and by taking action to chip and mulch instead of burning and bring our clear blue skies back and

improving the health of the citizens of our county. In addition, it would show that all of us can lead the way in reducing global warming emissions from burning wood products that release greenhouse gases. Reduction actions could reduce drought conditions in many areas (15), where burning reduces rainfall totals.

In some cases it is alleged that backyard burning is illegally used to burn toxics which are then buried polluting both our air and water supplies. It is now time to chip, compost, and deploy the best possible methods to clean up our air quality and place our toxics at recycling sites for proper disposal. Green waste bins have been provided for yard waste and this solution also protects public health.

According to the CA ARB May, 28, 2009, a new study demonstrates that life expectancy improves when air pollution is reduced along with increasing good health. What a great gift our Mendocino County Board of Supervisors could give to the residents of Mendocino County in 2010, if they put a stop to agriculture and backyard burning here. Other states and local communities could do the same.

It is now time for the public to take action to clear the air once and for all. In so doing, states and local governments can “go green” to protect public health, stop droughts caused by smoke particulates, and reduce medical costs. Our children will be healthier and we all will live longer and more productive lives without this type of burning. When one adds making wood stoves and fireplaces more efficient and less polluting or using alternative energy sources the savings will be even more. And we could set a good example for others. End

By Rosalind Peterson, Agriculture Defense Coalition

For More Information: <http://www.agriculturedefensecoalition.org/>

#### **See Attachments & Links from the California Air Resources Board**

**1) Wood Burning Air Pollution Control Measures**

[http://www.arb.ca.gov/pm/pmmeasures/board\\_approved\\_list.pdf](http://www.arb.ca.gov/pm/pmmeasures/board_approved_list.pdf)

**2) Childhood Allergies Exacerbated by Air Pollution March 2009 Study**

<http://www.arb.ca.gov/newsrel/nr032609.htm>

**3) Mendocino County Open Burning Information Sheet 2010**

[http://www.co.mendocino.ca.us/aqmd/pdf\\_files/BurnInfoSheet.pdf](http://www.co.mendocino.ca.us/aqmd/pdf_files/BurnInfoSheet.pdf)

**4) January 23, 2009 <http://www.arb.ca.gov/newsrel/nr012303.htm> California Issues Wood Burning Advisory due to Health Problems Associated With Air Pollution – CA**

"...In many areas of California, wood smoke significantly degrades air quality and visibility, and can be the biggest single source of pollution, especially on still winter days. In order to reduce air pollution..." said ARB Chairman, Alan Lloyd.

Burning wood produces air pollutants such as carbon monoxide, nitrogen dioxide and particulate matter. These pollutants are hazardous to the respiratory system. They can trigger asthma in sensitive individuals, and may cause chronic lung disease. Particulate matter can be especially dangerous since, when inhaled, it can penetrate deep into the lungs where it may remain for years. Wood smoke also contains substances such as benzene, formaldehyde, and benzo-a-pyrene, which can contribute to the development of cancer and irritate the eyes and throat.

**5) October 18, 2000 CA ARB - Study Links Slow Lung Growth Rate in Children With Pollution - SACRAMENTO -- <http://www.arb.ca.gov/newsrel/nr101800.htm>**

- 6) **January 31, 2009 CA ARB - Study Links Air Pollution and Asthma - SACRAMENTO**  
-- A ten-year study of children funded by the California Environmental Protection Agency's Air Resources Board (ARB) and conducted by the University of Southern California (USC) has produced the strongest evidence to date that ozone, commonly known as smog, can cause asthma in children. ARB Chairman Dr. Alan Lloyd said, "We've known for some time that smog can trigger attacks in asthmatics. This study has shown that ozone can cause asthma as well."

<http://www.arb.ca.gov/newsrel/nr013102.htm>

- 7) **Garbage Burning Banned Statewide in California – December 2003 – CA ARB**

<http://www.arb.ca.gov/newsrel/nr123003.htm>

SACRAMENTO Beginning January 1, 2004, outdoor residential waste burning will no longer be allowed. The California Air Resources Board's (ARB) measure addresses one of the state's largest uncontrolled sources of dioxin, a compound identified as a toxic air contaminant by the state and U.S. Environmental Protection Agency (U.S. EPA).

"We are capping an emissions source that is not generally recognized by the public," said ARB Chairman, Dr. Alan Lloyd. "Whenever garbage is burned, be it junk mail, food containers or gift-wrapping paper, toxic compounds and particulate matter are dispersed. These emissions can adversely affect the health of people who breathe them or subsequently ingest them after they enter the food chain through the soil and water," he added.

Residential waste burning is a serious health concern because it produces toxic pollutants that can linger in the environment and our bodies. These emissions can potentially cause respiratory ailments, cancer, immune system damage and other health problems. One pollutant of particular concern, dioxin, is especially damaging to infants, children, the elderly and infirm, according to the California Office of Environmental Health Hazard Assessment and U.S. EPA...."

- 8) **CA ARB Air Pollution** <http://www.arb.ca.gov/newsrel/nr032609.htm> **March 26, 2009 - Air pollution contributes to allergies - New study supports efforts to protect children from air pollution - SACRAMENTO:** Today, at its monthly regulatory hearing, the California Air Resources Board reviewed the results of a national study that linked exacerbation of childhood allergies to increased air pollution.

A survey of more than 70,000 children, aged three to 17, revealed that exposure to greater amounts of ozone or particulate matter triggers more symptoms of hay fever and respiratory allergies.

- 9) **CA ARB Wildfire Smoke is Dangerous – August 6, 2009 – This means controlled forest burns is also dangerous – along with backyard burning of year wastes.**

<http://www.arb.ca.gov/newsrel/nrSmokewarning.htm>

- 10) **CA ARB – May 2009 Study Confirms that Air Pollution Reductions Increases Life Span.** <http://www.arb.ca.gov/newsrel/nr052809.htm>

- 11) **CA ARB - Air pollution episodes especially harmful to athletes, outdoor workers**

<http://www.arb.ca.gov/newsrel/nr072408.htm>

**Health effects include respiratory problems, DNA damage**

- 12) **CA ARB California Adopts New Ozone Standard Children's Health Focus of New Requirement** <http://www.arb.ca.gov/newsrel/nr042805.htm> **April 28, 2005**

EL MONTE -- Today the California Air Resources Board (ARB) approved the nation's most health protective ozone standard with special consideration for children's health.

- 13) February 24, 2009 CA ARB <http://www.arb.ca.gov/newsrel/nr022403.htm>  
Hospitalizations and Emergency Room Visits Increase Following High Particulate Matter Episodes, Study Finds
- 14) <http://www.arb.ca.gov/newsrel/nr013102.htm>  
Study Links Air Pollution and Asthma in Children January 31, 2002
- 15) Air Pollution Study-Israel Demonstrates that Air Pollution Reduces Rainfall Totals  
<http://www.mfa.gov.il/MFA/Israel+beyond+politics/Study%20finds%20air%20pollution%20cuts%20vital%20mountain%20rainfall%2014-May-2007>  
Professor Rosenfeld, who has won many awards for his work, including the Schaefer and Thunderbird awards from the Weather Modification Association and the Verner Suomi Medal of the American Meteorological Society, has been studying this field for many years.

In 2000 he used satellite data to show that urban pollution was reducing the size of water droplets inside clouds and proposed that this would reduce precipitation from short-lived clouds in hilly regions...Pollution upsets this delicate balance. Water vapor condenses on the pollution particles, creating a cloud with a large number of drops that are so small they float in the air. Before these tiny drops have a chance to grow large enough to fall as raindrops or snow, the lifetime of the cloud is already over. Instead, the water evaporates into the air... 'In recent years there has been a decrease in the number of mass particulates in the air, but there has been no decrease in the number of small particulates that affect clouds.

We have to take note of what is happening to our water resources," adds Rosenfeld. "People must do something about it. The world has to cut down on air pollution'..."

- 16) U.S. Fires Release Large Amounts of Carbon Dioxide, New Study Shows  
October 31, 2007 <http://www.ucar.edu/news/releases/2007/co2fires.jsp>
- 17) Air Pollution Study-Israel Demonstrates that Air Pollution Reduces Rainfall Totals  
<http://www.mfa.gov.il/MFA/Israel+beyond+politics/Study%20finds%20air%20pollution%20cuts%20vital%20mountain%20rainfall%2014-May-2007>

18) Where to File Complaints in California:

California Environmental Protection Agency (CA EPA)  
1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815  
Home Page: <http://www.calepa.ca.gov/>

- 19) California Air Pollution Complaints-Where & How to File:  
<http://www.arb.ca.gov/enf/complaints/complaints.htm>

- 20) EPA Air Now Website: <http://www.airnow.gov/> Current U.S. Air Quality Maps + Data

- 21) Smoke Inhibits Rainfall [http://www.agu.org/sci\\_soc/prll/prll9931.html](http://www.agu.org/sci_soc/prll/prll9931.html)  
"Spacecraft provides first direct evidence: Smoke in the atmosphere inhibits rainfall"  
News Release – American Geophysical Union + NASA Studies

Note: The EPA has offices in every state where complaints may be filed regarding air quality issues or anyone may file with the U.S. EPA.