



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ADVISORY COUNCIL PUBLIC HEALTH COMMITTEE

AGENDA

COMMITTEE MEMBERS

JEFFREY BRAMLETT, CHAIRPERSON
CASSANDRA ADAMS
JANICE KIM, M.D.
STEVEN T. KMUCHA, M.D.

KAREN LICAVOLI-FARNKOPF, MPH
LINDA WEINER
BRIAN ZAMORA

WEDNESDAY
SEPTEMBER 6, 2006
10:00 A.M.

7TH FLOOR BOARD ROOM

1. **Call to Order – Roll Call**
2. **Public Comment Period**

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3. The public has the opportunity to speak on any agenda item. All agendas for Committee meetings are posted at the District, 939 Ellis Street, San Francisco, at least 72 hours before a meeting. At the beginning of the meeting, an opportunity is also provided for the public to speak on any subject within the Committee's purview. Speakers are limited to five minutes each.

3. **Approval of Minutes of May 10, 2006**
4. **Summary of the 2005-06 Woodsmoke Survey**
5. **American Lung Association (ALA) Recommendations on Wood Smoke**

Staff will present a summary of the 2005-06 Spare the Air Tonight Survey results.

Jenny Bard, American Lung Association, will present the ALA's recommendations on wood smoke abatement for the Bay Area.

6. Discussion on Wood Smoke Abatement

The Committee will review the information on wood smoke abatement received to date, and consider next steps.

7. Committee Member Comments/Other Business

Committee members, or staff, on their own initiative, or in response to questions posed by the public, may ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting on any matter or take action to direct staff to place a matter of business on a future agenda.

8. Time and Place of Next Meeting

10:00 a.m., Tuesday, October 10, 2006, 939 Ellis Street, San Francisco, California 94109.

9. Adjournment

JB:mr

CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET SF, CA 94109

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- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Clerk's Office should be given in a timely manner, so that arrangements can be made accordingly.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

EXECUTIVE OFFICE:
MONTHLY CALENDAR OF DISTRICT MEETINGS

AUGUST 2006

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting (<i>Meets 1st & 3rd Wednesday of each Month</i>) - CANCELLED	Wednesday	16	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee (<i>Meets 4th Wednesday of each Month</i>) - CANCELLED	Wednesday	23	9:45 a.m.	4th Floor Conf. Room
Board of Directors Public Outreach Committee (<i>Meets 4th Monday every other Month</i>)	Wednesday	30	9:30 a.m.	4 th Floor Conf. Room

SEPTEMBER 2006

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting (<i>Meets 1st & 3rd Wednesday of each Month</i>) - CANCELLED	Wednesday	6	9:45 a.m.	Board Room
Advisory Council Public Health Committee	Wednesday	6	10:00 a.m.	Board Room
Board of Directors Mobile Source Committee (<i>Meets 2nd Monday of each Month</i>)	Monday	11	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Executive Committee - CANCELLED	Wednesday	13	9:00 a.m.	Room 716
Board of Directors Executive Committee Meeting (<i>At the Call of the Chair</i>)	Wednesday	13	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Regular Meeting	Wednesday	13	10:00 a.m.	Board Room
Board of Directors Regular Meeting (<i>Meets 1st & 3rd Wednesday of each Month</i>)	Wednesday	20	9:45 a.m.	Board Room
Joint Policy Committee	Friday	22	10:00 a.m. – Noon	MetroCenter Auditorium 101 – 8 th Street Oakland, CA 94607
Board of Directors Stationary Source Committee (<i>Meets 4th Monday of every Quarter</i>)	Monday	25	9:30 a.m.	Board Room
Board of Directors Budget & Finance Committee (<i>Meets 4th Wednesday of each Month</i>)	Wednesday	27	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Personnel Committee (<i>At the Call of the Chair</i>)	Thursday	28	9:30 a.m.	4 th Floor Conf. Room

OCTOBER 2006

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting (<i>Meets 1st & 3rd Wednesday of each Month</i>)	Wednesday	4	9:45 a.m.	Board Room
Advisory Council Public Health Committee	Tuesday	10	10:00 a.m.	Room 716
Advisory Council Technical Committee	Wednesday	11	1:00 p.m.	Board Room
Board of Directors Mobile Source Committee (<i>Meets 2nd Monday of each Month</i>)	Monday	16	9:30 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting (<i>Meets 1st & 3rd Wednesday of each Month</i>)	Wednesday	18	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee (<i>Meets 4th Wednesday of each Month</i>)	Wednesday	25	9:45 a.m.	4th Floor Conf. Room

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8/15/06 (2:30 p.m.)
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Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

DRAFT MINUTES

Advisory Council Public Health Committee Meeting
12:30 p.m., Wednesday, May 10, 2006

- 1. Call to Order – Roll Call.** Chairperson Bramlett called the meeting to order at 12:30 p.m. Present: Jeffrey Bramlett, Chairperson, Cassandra Adams, Steven Kmucha, M.D., Karen Licavoli-Farnkopf, MPH, Linda Weiner. Absent: Janice Kim, M.D., Brian Zamora.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of Minutes of April 11, 2006.** Dr. Kmucha moved approval of the minutes; seconded by Ms. Adams; carried unanimously.
- 4. Wood Smoke Abatement Efforts.** John Crouch, Director of Public Affairs of the Hearth, Patio & Barbeque Association (HBPA) presented “Wood Smoke Abatement Program Applications,” stating that he would focus on developments in the field of appliance change-outs, both locally and nationwide. He indicated that hearth products fall into two categories: (a) heating (wood stoves, pellet stoves, gas hearth products, and others—such as electric, oil, and corn stoves) and (b) decorative products (wood – open fireplaces, and also gas and electric appliances). With respect to the latter, an open wood burning fireplace is primarily a decorative feature in most houses. In wood burning surveys, some individuals note that their fireplace is primarily decorative but also a secondary heating source. Others may only use their fireplace on major wintertime holidays. A number of heating appliances come as a free-standing item or as an insert for a fireplace, and are known as “aftermarket” products. Inserts include a gas heating element, and a pellet or woodstove insert. In phone surveys of homes, responses vary considerably such that residents identify a fireplace with an insert as a single unit, or as two separate units.

Operating assumptions for air quality and hearth products from the hearth products industry are that metropolitan areas contain substantially more fireplaces than wood stoves or inserts but that the inserts are also used substantially more than open fireplaces. Some open fireplaces are not used at all. Approximately 85-90% of wood stoves on a nationwide basis are pre-Environmental Protection Agency (EPA) certified. As much as 50% of Bay Area wood combustion units are not certified. In 1990, the HBPA conducted a change-out program in Seattle, and a similar program in Northern California/Southern Oregon. There have been modest industry discounts provided for such change-out programs but little public funding has been forthcoming. The California Energy Commission has offered funding for change-out programs for emission offsets.

The EPA has created a “change-out team” to coordinate change-out programs nationwide. It models its approach on diesel engine retrofit programs. It has held workshops, at times co-located with HBPA trade shows, on wood appliance change-out products and strategies.

EPA has reached out to state and local tribes in this program, and has upgraded its wood burning data on its website. It has issued guidance on State Implementation Plan (SIP) credits. It also has instituted a national woodstove change-out campaign with program elements that focus on raising awareness, developing partnerships, targeting specific areas and providing tools for program work. EPA uses a slide at the National Chimney Sweep Guild to educate viewers on the importance of addressing wood smoke emissions. It indicates that approximately 80% of fine particle (PM_{2.5}) pollution derives from woodstoves. This total exceeds the total PM_{2.5} emissions from petroleum refineries, cement manufacturers and pulp and paper plants.

On-going or completed woodstove change-out campaigns in 2005 were conducted in Libby, Montana; Southwest Pennsylvania; Washoe County, Nevada; Butte County, California; Christiansburg, Virginia; Darrington, Washington; Whatcom/Island County, Washington; Swinomish Tribe, Washington; Questa, New Mexico; Yakima, Washington; and Delta County, Colorado. Similar campaigns are planned in 2006/2007 in Washington County, Ohio; Sacramento and San Joaquin, California; Oakridge, Oregon; Christiansburg, Virginia; Whatcom/Island County, Washington; Swinomish Tribe and Yakima, Washington; Libby Montana, Greenville; South Carolina, Hagerstown; Maryland, Central Washington, Maine; Rutland, Vermont; New Jersey, Minnesota; Catawba County, North Carolina and Oneida Nation, Wisconsin. The HBPA is soliciting interest in a “state wide” change-out this winter in California and would welcome District participation. In 1999, the District got PG&E to include a two-sentence statement on electricity bills in Northern California/Central California that resulted in the change-out of many wood stoves. This was not costly for the District.

In Libby, Montana there is a “Whole Town” change-out of wood burning appliances underway. As there is no natural gas in Libby, there is considerable wood burning during cold weather that contributes to 82% of total PM_{2.5} in the area. Through assistance from the HBPA, the EPA and federal funding, all stoves in Libby will be changed-out over a two-year period. In late 2007, data from “before” and “after” PM monitoring will be analyzed and compared.

Key elements of wood stove change-out programs include the verification of the emission reductions, the provision of financial incentives for change-out, and public education. In Libby, the HBPA is providing free-of-charge over 300 EPA-certified stoves to low-income families. Some public resources are being applied in the form of Supplemental Environmental Projects (SEPs) funds as well as emission offset programs.

Rising energy costs have created major challenges to wood burning appliance change-out programs because there is a greater interest in supplementing home heating with wood due to anticipated increases in home heating costs. Old wood stoves and inserts do not break and consumers do not shop for replacements as with electric appliances. Incentives must therefore be larger to trigger change-outs. However, with the heightened awareness about increasing energy and fuel costs, access to the media on heating and energy costs is much easier.

Mr. Crouch added that change-out campaigns, in order to maximize effectiveness, must be sponsored by both public and private funding. Media attention is also crucial to program effectiveness. Targeted funding of change-out programs to areas with higher incidences of asthma is an area for future consideration. EPA certification applies to wood stoves, but not to fireplaces, pellet stoves, masonry heaters and outdoor wood furnaces. To expand the jurisdiction of certification over other appliances and units, EPA would have to reopen its new source performance standards process.

Kathy Hayes, Government Affairs Director, North Bay Association of Realtors, stated that having participated in local community discussions on the change-out of wood burning appliances in the home at the point of its sale, and having observed how local government policy is moved forward on this field, she believes that point-of-sale is both challenging and problematic. It not only takes a long time to implement but also places a huge responsibility and liability on the real estate industry. It takes 25 to 40 years for an entire housing stock to turnover, and this does not provide a rapid response to air quality, health and safety issues. It also leads to the inequitable treatment of property, with one house regulated and another house unregulated. It also makes the realtor a *de facto* employee of whatever agency or group is imposing the rule, and the work that is done is without compensation for the real estate representatives. Evaluation of wood burning appliances in the home, under any wood smoke ordinance with a point-of-sale provision, becomes a liability on the real estate community and becomes an inherent part of the escrow process. It encumbers a real estate transaction with additional inspections, inspection fees, and other processes which could take multiple weeks to schedule and accomplish, depending upon the jurisdiction.

Point-of-sale has had various applications. The City of Santa Rosa has chosen different paths to address health and safety, or water conservation issues, and has not included point-of-sale in these. The City of Marin adopted a point-of-sale ordinance for water conservation devices in homes, but it later repealed it as it was too slow, too bureaucratic and too great a burden on realtors. The Las Galinos Municipal Service District repealed a similar point-of-sale approach for water conservation units. The City of Sebastopol adopted a point-of-sale program for wood burning appliances in homes that included a community wide “don’t use” policy. This posed a major problem for its real estate community, which found itself saddled with work that belonged to the City: preparing forms for implementing the ordinance and setting deadlines for the submission of paperwork. The City had not developed any guidance for the implementation of the policy, and some procedures that the City had committed to developing have yet to be developed. Liability issues created by the policy lead to lawsuits against realtors. Many escrows were completed without any wood burning appliance change-out occurring. Although realtors were not the moving party in the point-of-sale requirement, they were nevertheless named a party to a lawsuit concerning certain property sales.

The City of Santa Rosa instead implemented a community wide “can’t use” policy. It did not ask for a wood burning appliance insert, but instead created an honor system approach to compliance. Santa Rosa took its lead from a model that advocated water conservation devices, with similar discussion attempting to provide incentives for the purchase and installation of water-conserving toilets on a community-wide basis. Citizens could pick up free toilets from the city and have them installed. Paying the plumber to install the water-saving devices turned out to be less expensive than the overall costs involved in the point-of-sale approach.

Several years ago the City of Truckee passed a point-of-sale ordinance. One-third of all the homes had a woodstove or fireplace insert that was not EPA-certified. The implementation date of the point-of-sale ordinance was extended several times due to the time and expense to train staff and to discuss the implementation problems with the real estate community. Since that time the City of Truckee reconsidered and rescinded the ordinance and elected instead to require the change-out of wood burning appliances in all homes over a five-year period. The City of Truckee will be divided into five quadrants, and priority for change-out will be given to those areas determined to have the largest wood smoke problem. Within five years, the entire community will be retrofitted. This will allow the air quality staff and inspectors one

concentrated area per year on which to focus. Homeowners must certify that they are in compliance. A non-certified stove must be replaced or removed, and regulatory staff will then have to follow-up to ensure this is done.

Community education must also be a part of any Bay Area-wide campaign. Although one speaker who addressed the Public Health Committee in April opined that the public is well educated on wood smoke issues, that viewpoint may not be shared by others. Ms. Hayes added that she has learned a great deal over the last several years about wood smoke on both a family and professional level, and the choices she would make now about wood smoke are different from ones she would have previously made. The need to get quality information out to the public about wood smoke, and in a coordinated fashion with all stakeholders to the process, cannot be sufficiently emphasized. With the right data, citizens will make informed choices.

It is premature to move into any regulatory mode without having maximized public education. Ordinances such as the one implemented in Sebastopol are less preferable to a universal change-out program such as the one which the City of Truckee is implementing. The question of accurately measuring the impact of any program or regulation is important to the total wood smoke abatement effort.

Ms. Hayes concluded that there are alternatives to point-of-sale that treat every home equally and provide a much bigger result for the investment in dealing with wood burning appliances. The real estate community is interested in working with the Air District to come up with an approach to wood smoke abatement that does not unduly impact realtor industry.

In reply to questions, Ms. Hayes noted that in any discussion with regulators, two issues must be addressed: the use of the real estate community staff as *defacto* employees to the regulatory process, and the matter of liability in suits over housing and property. From a health and safety point of view, point-of-sale is not an effective or timely approach. A more viable approach would be phased-in, beginning with education and moving to a “can’t use” policy, and thereafter to a universal change-out program that moves through a community and indicates to residents that if they obtain a certified device, they have plenty of time in which to make the change, and that financial incentives are available to them in order to achieve this goal.

Chairperson Bramlett directed that at the next meeting the Committee will discuss an initial draft of possible recommendations which will be refined and then presented to the Council.

5. **Committee Member Comments/Other Business.** There were none.
6. **Time and Place of Next Meeting.** The June 13, 2006 meeting was canceled. Chairperson Bramlett directed that members be surveyed as to their availability on future suggested dates.
7. **Adjournment.** 2:04 p.m.

James N. Corazza
Deputy Clerk of the Boards

**American Lung
Association
of California**

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July 5, 2006

Mr. Jeffrey Bramlett, Chairperson
Advisory Council Public Health Committee
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dear Chairperson Bramlett and Members:

We write today to follow up with suggestions for your consideration in developing wood smoke abatement policies and regulations that will protect the public's health—both from locally high levels of air pollution within individual neighborhoods, and from particulate pollution throughout the Bay Area.

These suggestions were developed based upon the following sources and areas of expertise:

- Nearly 20 years of experience addressing the deleterious health effects of wood smoke in the community.
- Extensive experience working with local governments throughout the Bay Area to implement local wood smoke ordinances.
- Review of the “best practices” presentations made before your committee.
- Review of the document, “Historical Perspective on Wood Smoke Emissions,” prepared by Kelly Wee, BAAQMD Director of Compliance and Enforcement.
- Thorough review of the medical, scientific and epidemiological data relating to the health effects of wood smoke and particulate pollution.
- Input from knowledgeable members of the scientific and medical community.

Voluntary ordinances adopted by cities and counties have made a difference in prohibiting open-hearth fireplaces in new construction. However, these ordinances have had no effect on solving existing problems related to burning—not only of firewood, but also of trash, plastics, and other materials. The suggestions outlined below will help address the very real public health problems being experienced throughout the Bay Area.

In the interest of brevity, we will not delve into the various health concerns posed by wood smoke pollution, and assume the Committee is already well versed in the scientific basis for comprehensive wood smoke abatement regulations and policies at this time. However, if the

Committee would like any additional information, we stand ready to provide it upon request.

What follows, in no particular order, are our suggestions for wood smoke abatement regulations and policy initiatives:

1) Instate a mandatory wood burning curtailment when predicted particulate matter concentrations approach unhealthful levels. This is a commonsense, proactive approach to protecting the public's health. It would also be a critical first step towards preventing the BAAQMD from being in non-attainment with expected new EPA PM2.5 standards. This rule could be modeled upon those enacted by the Puget Sound Clean Air Agency and all of Washington State.

2) Enact an opacity regulation applicable to residential wood burning. This would be a much-needed tool for effective enforcement of irresponsible wood burning. It would set an objective standard for quantifying irresponsible wood burning which creates excessive amounts of air pollution and poses a hazard to public health. Once again, this rule could be modeled upon regulations enacted by the Puget Sound Clean Air Agency and Washington State. These regulations have been found to be workable, and have contributed to the marked decline in PM2.5 levels in the Seattle area since their enactment.

3) Create a list of "prohibited fuels" that cannot be burned in residences. This list should include, for example, garbage (which creates dioxins and other toxic and carcinogenic compounds when burned,) chemically treated wood, plastics, and wood having a moisture content greater than 20% (unseasoned wood generates greater quantities of particulate pollution than properly seasoned firewood.) Many other air pollution control boards and local ordinances already have similar regulations against burning prohibited fuels in a fireplace or wood stove.

4) Have active and visible enforcement of improper wood burning. This is a crucial component of any effective woodsmoke abatement program. If an individual is permitted to burn wood improperly with impunity, it sends the message that it is okay for others to do so. It is imperative that BAAQMD fund a visible wood smoke enforcement effort, with officers on duty at night and on weekends, when the majority of wood burning takes place.

5) Establish a Complaint Program with effective response. A mechanism for responding to citizen complaints would address a long-

standing problem: the failure of local residents to receive any real assistance in addressing problem burners.

6) Continue to promote the Model Ordinance in communities throughout the Bay Area. This is an effective tool to stop proliferation of new sources of wood burning pollution. BAAQMD will need to be vigilant in preventing local communities from “watering down” the model ordinance by deleting key provisions such as the prohibition on the installation of non-certified wood burning devices in new construction or the removal requirement during remodeling (as has happened in several communities).

7) Define and prohibit improper wood burning. This could be handled through a rule similar to Washington Administration Code 173-433-130, which is attached to this document. It would give BAAQMD enforcement officers an additional tool to prevent individuals from burning wood improperly at the expense of the public health.

8) Fund an effective public outreach and education effort. It is critically important to educate the public about the health hazards of wood burning and to modify ingrained human behaviors. This effort needs to be consistent, long-term, and funded sufficiently to enable effective media levels.

9) Install additional PM 2.5 monitors. These are needed most urgently in inland valley locations, particularly in Marin, Contra Costa and Napa counties. They would help in better understanding localized particulate pollution levels, and could be used to more precisely tailor mandatory wood burning curtailments.

In addition to the above, we would like to point out a policy initiative that, while superficially attractive, **cannot** be recommended at this time:

1) Do NOT require a real estate change-out at point-of-sale provision. From our experience helping to enact local wood smoke ordinances, we know that including a rule for a mandatory wood stove change-out at point-of-sale would generate substantial opposition from the real estate industry. Moreover, it is not likely to have a significant effect on regional air quality in the near future. Certified wood-burning devices produce less particulate air pollution than uncertified ones when maintained and operated according to specifications; however, even certified wood stoves produce hundreds of times more particulate pollution than heaters burning oil or natural gas. In addition, certified wood stoves have been demonstrated to emit levels

of particulate matter comparable to uncertified devices if not used correctly and properly maintained. Also, as a practical matter, only a small percentage of homes containing wood burning devices in the Bay Area are sold each year, so this would not be an expedient way to solve the problem of pollution from wood burning devices. While a change-out policy may be an effective tool for some communities to meet their needs to reduce wood smoke pollution, we do not feel this policy will be necessary within the jurisdiction of the BAAQMD if the above recommendations are adopted.

We would like to thank Chairperson Bramlett and the Committee Members in advance for taking the time to carefully consider the above suggestions. Please don't hesitate to contact us if you have any questions, or if we can provide you with any further assistance.

Sincerely,



Karen Fulton
President & CEO
American Lung Association of California
Association of California
Greater Bay Area Office



Barbara Beedon
Executive Director
American Lung
North Coast Office

CC: Clean Air Advisory Committee Members
Fred Lurmann, PhD, President Emeritus, Sonoma Technology, Inc.
Michael Lipsett, MD, Associate Clinical Professor, UC San Francisco
Willard Richards, Air Quality Scientist
Chuck Hammond, former fleet manager, City of Santa Rosa
William Zeller, Clean Air Transportation Program Director, PG&E

(Exhibit A)

WAC 173-433-130

General emission standards.

In addition to the general applicability of chapter [173-400 WAC](#) to all emission sources;

(1) Emissions detrimental to persons or property. No person shall cause or permit the emission of any air contaminant from an identifiable solid fuel burning device, including any air contaminant whose emission is not otherwise prohibited by this chapter, if the air contaminant emission causes detriment to the health, safety, or welfare of a person, plant or animal, or causes damage to property or business.

(2) Odors. Any person who shall cause or allow the generation of any odor from any solid fuel burning device which may interfere with any other property owner's use or enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.