



Missoula City-County Air Pollution Control Board
April 9, 2009

Board Members Present: Dr. Garon Smith (Chair), Jean Curtiss, Dr. Alan Gabster, Ross Miller, and Renee Mitchell

Board Members Excused: Dr. Sandy Kuntz (Vice Chair) and Eileen Sansom

Health Department Staff Present: Health Administration: Ellen Leahy and Julie Mohr; and Environmental Health: Jim Carlson, Mamie Colburn, Ben Schmidt, and Shannon Therriault

Legal Counsel Present: Marnie McClain (Chief Civil Deputy County Attorney)

Others Present: Lili Czonka, John Garberson, Guy Hanson, Danielle Herbst, Roger Hilton, Valida Holder, Christine Johnson, Jacquelyn McNabb, Nancy Robert, Ron Scholl, Joshua Silverstein, Betsy Stockton, Emily Stabio, A. Wilkinson, Tawnee Winberry, and Alicia Zuber

MEETING CALLED TO ORDER

Dr. Smith called the meeting to order at 1:46 p.m.

ITEM 1 APPROVE MARCH 19, 2009 MINUTES

The minutes were approved with a correction to change “Dr.” to “Director” in the seventh line in the third paragraph on page 2.

ITEM 2 PROPOSAL TO REVISE AIR POLLUTION CONTROL PROGRAM REGULATIONS

- **Attachment A**, “March 27, 2009 Memo – Missoula City-County Air Pollution Control Program Draft Regulation Changes” (Staff memo and fact sheets for chapter revisions)
- **Attachment B**, “Missoula City-County Air Pollution Control Program: April 1, 2009 Draft – Chapter 4”
- **Attachment C**, “Missoula City-County Air Pollution Control Program: April 1, 2009 Draft – Chapter 6”
- **Attachment D**, “Missoula City-County Air Pollution Control Program: April 1, 2009 Draft – Chapter 9”
- **Attachment E**, “Missoula City-County Air Pollution Control Program: April 1, 2009 Draft – Chapter 14”
- **Attachment F**, “Air Pollution Control Program: Proposed Changes” (PowerPoint presentation)

Staff Request: Director Leahy indicated the health department started the process to set up community meetings to exchange information and comments with the public regarding proposed revisions to the Air Pollution Control Program regulations. The purpose of the April 9th staff

presentation was to introduce the proposal to the board. She asked the board to take action to set a date for a formal hearing and start the formal process and to set a written comment period. Dr. Smith outlined the public process used by the board to consider this type of proposal. Director Leahy added that various stages of the process would be televised and comments would be posted at the department's website.

Staff Presentation: Mamie Colburn and Ben Schmidt provided information presented in **Attachment F**, portions of which are also outlined in varying detail in **Attachments A** through **E**, in order to familiarize the board with the draft regulations and to begin the process to determine how to proceed as a community, with public participation expected and welcomed.

Purpose of the Proposed Regulation Changes:

Ms. Colburn reviewed action by the federal government to tighten the air quality standard for PM_{2.5} and the department's responsibility to promulgate the change and incorporate it into the Air Pollution Control Program's rules—thus necessitating the proposed changes. She gave information on the EPA standard, the adverse health effects of PM_{2.5}, the department's responsibility to protect public health by protecting the standard, and the groups in Missoula County who could be susceptible to those adverse health effects. Data collected in the past place Missoula very close to exceeding the standard and becoming non-attainment.

Overview of Proposed Changes to Chapter 4:

Ms. Colburn described changes summarized below and detailed in **Attachments A, B, and F**:

- Set levels and areas for Stage I Alerts and Stage II warnings.
- Create a wildfire plan authority and allow for special wildfire alerts by adding a provision for the Wildfire Smoke Emergency Episode Avoidance Plan that can differ from winter alerts, eliminating the need every June to obtain a 90-day board order.

Overview of Proposed Changes to Chapter 6:

Mr. Schmidt described the changes summarized below. (See **Attachments A, C, and F**.)

- Revise regulations about stationary sources to cover small boilers that currently are not addressed in the rules. Mr. Schmidt described the small and larger sources that are required to be permitted but there is a gap in between. To cover the gap, the proposal requires all residential, institutional, and commercial solid fuel burning devices used for space heating to get a permit if they have the capacity to burn more than 1 million BTUs—even if they have emissions less than 25 tons per year.
- Protect sensitive airsheds in the county by requiring strict limits for emissions and testing. Mr. Schmidt identified the proposed limit and explained the two methods used to arrive at that value.

Potential Additional Revision:

Currently, industrial boilers are not affected. The National Emission Standards for Hazardous Air Pollutants (NESHAP) is going to propose regulations that would affect industrial boilers, raising the question whether the board should consider including industrial boilers in the county's proposed revisions. The NESHAP proposal will not require a permitting process, which would be required if industrial boilers are included the Air Pollution Control Program rules. They were not going to be included because industry usually uses them at sites where

they are doing some type of wood product processing. They would have very limited control over the fuels burned, whereas in the Fuels for Schools program it is easier to set standards for the fuel purchased.

Board Questions: In response to questions from Ross Miller and Jean Curtiss, Mr. Schmidt and Ms. Colburn said groups such as the University of Montana and the Forest Service are interested in using boilers that would require permitting under the proposed change. The inquiries primarily relate to institutional boilers for the Fuels for Schools program, which is being promoted around the nation. Darby and Dillon have these types of boilers. The department does not know of any industrial boilers operating in the county but wants to prepare for their possible use by requiring devices with the highest efficiency possible.

Overview of Proposed Changes to Chapter 9:

Changes to Chapter 9 will likely elicit most of the public comments. Mr. Schmidt said results of Chemical Mass Balance (CMB) studies performed locally and around the state show wood stoves remain the primary source of PM_{2.5} in Missoula, the county, and across western Montana. PM_{2.5} particulate levels are right at the standard in Frenchtown, the Bonner area, and in the Seeley Lake/Swan Lake area. The revisions are intended to address the smoke problem that persists countywide and to avoid being designated non-attainment by meeting EPA emission standards in a manner that balances the need to protect air quality and public health with economic needs and rural lifestyles.

The proposed revisions would establish a permitting program throughout the county as follows:

- Require all new solid fuel burning devices installed countywide to obtain a permit.
- Adopt minimum standards for emissions for solid fuel burning devices installed throughout the county.

Mr. Schmidt said the wood stoves must be EPA-certified, described the limits for emissions for both catalytic and non-catalytic devices, and indicated that an alternative test method may be submitted for other devices. The department does not want to exclude them if they are cleaner than the EPA-certified wood stoves.

Potential Additional Revisions:

The department uses the grams per hour testing method because it is the one most commonly used. The question has been posed and likely will be asked again why the department does not use grams per kilogram to make it fair for the larger units.

The department received comments from the masonry heater industry: they would like to be able to install these devices. Mr. Schmidt's review of literature shows that, if they submit test results, masonry fireplaces potentially could be approved under the current proposal. They can be shown to be very clean burning.

The department should obtain input and the board will need to weigh in on the draft standard for emissions mentioned in Rule 9.203(5), which says that emissions for the burn rate category should be set at 10 grams per hour. This differs from the EPA maximum for wood

stoves, which is set at 18 grams per hour. The department would like to apply the stricter standard so that if alternative testing methods are allowed, the devices installed now and in the future must be very clean. If the alternative testing method is not comparable, it needs to be at least as good as the EPA method. The reference to the 10 grams per hour standard would not apply to masonry heaters. This testing method does not work for those devices but the department is allowing alternative testing methods.

Proposed changes to Chapter 9 also include the following:

- Allow persons outside the Air Stagnation Zone but inside Zone M to obtain sole source permits and provide a timeframe—to be decided on during this process—in which they may do so. There are many areas in Zone M where people in the future may have solid fuel burning devices as their sole source of heat. Various scenarios were considered: this draft of the proposal says that if a property does not have a connection to an electric utility, they should be allowed into the future to obtain a sole source permit. Data suggest that there may be 3 to 5 Stage I alerts per year. Hopefully, there will not be a huge impact on those who need to use a sole source heating device in Impact Zone M or the Air Stagnation Zone.
- Expand restrictions and enforcement for solid fuel burning device curtailment to the Air Stagnation Zone for Stage I alerts and to Impact Zone M for warnings. Mr. Schmidt described how the changes would impact used of wood stoves with no permits and those with permits in the various zones.

Overview of Proposed Changes to Chapter 14:

The proposed revision clarifies that a person asking for a permit and/or a person adversely affected by the department's decision to deny, modify or issue a permit can request an administrative review by the Health Officer.

Board Questions: Ms. Colburn, Mr. Schmidt, Director Leahy, Jim Carlson (Director, Environmental Health), and Shannon Therriault, (Supervisor, Environmental Health) contributed the following responses to questions from board members:

- Rules for solid fuel devices are for any devices installed inside a structure. Use of chiminea devices is not affected. In the county, anything that small is considered a recreational device, is covered under outdoor burning regulations, and does not require an outdoor burning permit.
- Currently under the alternative testing method proposed in the rules, the only hydronic heaters (outdoor wood boilers) that would be approved are pellet types because the highest burn rate cannot exceed 10 grams per hour. There is one central boiler that has a maximum emission rate of 17.6 grams per hours. If the rule is changed from 10 to 18 grams, which would more closely mimic the EPA method for wood stoves, that hydronic heater would potentially qualify for installation.
- Changes to outdoor burning regulations are not being considered because data show that air quality events that meet or exceed the standard typically occur during winter months when outdoor burning is not being done on a common basis—it is curtailed during three of the months. During an alert, it is cancelled even if a permit has been issued. The Idaho and Montana Smoke Management Unit regulates when outdoor burning is allowed; the public is informed via a hotline.

- Across the state, areas with sensitive urban areas most heavily impacted by PM_{2.5} during smoke situations have impact zones with boundaries that were drawn by the Forest Service, meteorologists and the Smoke Management Unit. The impact area for Missoula—Zone M—was created by the Air Pollution Control Board and altered in 2000 to better take into account what happens during smoke events. The Smoke Management Unit consists of all of the major burners in Idaho and Montana—including entities such as Plum Creek and the Forest Service—and interested parties. Missoula County is not a part of the unit in the sense of being a major burner but because their activities affect our air quality.
- During the last round to set wood stove regulations, existing wood stoves were grandfathered in until the time of title transfer when properties are sold. The new revisions do not supplant this mechanism in the Air Stagnation Zone. Outside the Air Stagnation Zone, older devices are not affected. The change in the rest of the county is the requirement to meet specific standards when new devices are installed. There are pages of approved devices in a list that is available from many local dealers.
- In Chapter 6, changes to industrial facilities that have boilers that are greater than 1 million BTUs per hour but produce less than 25 tons of pollutants are not covered by the regulations. Mr. Schmidt was not aware of any applicable industrial boilers in the county. Mr. Miller suggested that now would be an opportunity to include them. Mr. Schmidt concurred that doing so is one of the available options and did not see a downside to do so since NESHAP is pushing in that direction already. However, although it likely will be, the standard proposed by NESHAP has not been adopted federally. From the economic perspective of an industrial source, the downside to installing an industrial boiler is that a carbon-based filter would have to be added to capture particulate as it leaves in order to meet the standard. Mr. Miller noted by including industrial boilers in the rule now, the department would not later find itself in the position of having to possibly take away something already in place. Director Leahy said the department's discussion on this issue went back and forth: the department was not recommending one approach versus another and was looking for input. Dr. Smith said and Director Leahy concurred that for the purposes of a future hearing it would be better to consider a wider scope of options because the board cannot take action outside that scope once noticed. They favored including the option now for that reason.
- The requirement for a permit for a new device would apply throughout the county. The real impact in Zone M is if a Stage II warning is called—the action required would differ from elsewhere in the county.
- The predicted frequency of air alerts is 3 to 5 per winter season, based on limited data from the past winter. It will be more challenging to predict PM_{2.5} alerts as opposed to PM₁₀ alerts and may take several years to hone the process.
- There is a huge increase between the PM_{2.5} threshold used to declare a Stage III Emergency versus the threshold used to declare a Stage IV Crisis. (See page 3 of **Attachment B**.) The department does not base the Emergency Episode Avoidance Plan on an air quality index but does use an index for guidance. There are two different air quality indexes—EPA's Air Quality Index (AQI) and another used by Washington and Montana for their wildfire season. Mr. Schmidt chose 80 ug/m³ from one index and 250 ug/m³ from the other in order to generate discussion as to the pros

and cons of each index in order to determine which way the department should go. A choice has not been made but Mr. Schmidt recommended doing so. The air quality index guidance used by Washington and Montana is more protective. Episodes are called at lower levels. Using the Washington and Montana index, an “Emergency” would be declared at 80 ug/m³ and a “Crisis” would be declared at approximately 135 ug/m³. Using the federal index, an “Emergency” would be declared at 150 ug/m³ and a “Crisis” would be declared at approximately 250 ug/m³. Director Leahy recommended the more restrictive range should also be posted for public notice and comments. Dr. Smith concurred.

- The time it takes for PM_{2.5} to disperse and eventually dissipate varies. If there is not sufficient frost activity, particulates remain in the air until the wind blows them away, which can take days so restrictions may have to be applied for days. Issuing higher levels of alert categories does require altering the operation of the Environmental Health division to use other staff in addition to the air quality specialists to help with enforcement. In the past, calling alerts when PM₁₀ was a worse problem required overtime and evening work. There will be a learning curve for any proposed changes that are adopted: during the first winter emphasis would likely be placed on education and fines might not be imposed.

Public Comments: Dr. Smith called for public comments after reminding attendees that the April 9th meeting was not a formal public hearing.

Nancy Robert: She is from the Frenchtown area. She asked where the approved list of woodstoves mentioned by Mr. Schmidt can be obtained, whether individuals purchasing approved stoves will still need a county permit, whether individuals with grandfathered old stoves will need a permit for a new stove, and how the regulations will be enforced. She described seeing 14 fires burning on Sunday although the department’s hotline said no burning was allowed.

Mr. Schmidt responded as follows:

- o The department has a list of pellet stoves approved for use inside the Air Stagnation Zone. For the rest of the county, a list of EPA-certified devices—wood and pellet stoves—is readily available on the Internet. Wood stove dealers are aware of that list and have access to it. The department can assist in directing the public to the source of that information.
- o Under the draft regulations, approved devices must be permitted both in the case of installing a new approved stove where there was none before and when replacing a grandfathered stove with a new stove. Details on where and how to obtain the permit will have to be worked out if the rule changes are adopted.
- o There is no guarantee that the department can catch every device that is improperly installed but proposed changes are actions that must be taken to ensure air quality now and for the future as the population grows.
 - There is a county-wide building permit process already in place. A similar mechanism might be used to establish an enforcement program that is mostly successful. An education program will be necessary to show there is a valid reason for doing this in order to gain general acceptance and compliance. Most of the public tend to opt for EPA-certified devices out of self-interest

since they are more efficient and take less work to heat a home than with a non-certified device. There are a few exceptions, which is what the department is trying to stop.

- o Individuals can assist with enforcement by using a neighborhood watch approach to submit complaints to the department when they identify violations. In order to have clean air, the whole community needs to follow a set of rules.
- o Installation violations are mostly identified through complaints; however, if a Stage I Air Alert is called inside the Air Stagnation Zone, staff members do drive around to see if there are violations. That is an important time to educate appropriate parties.
- o Due to limited time and resources, staff members try to provide extra enforcement pressure on days when burning is closed because there is going to be very bad dispersion—when conditions may be very close to or at the standard. When burning is closed, it is always for good reasons but extra enforcement pressure is applied on the worst days.

Guy Hanson: He asked Mr. Schmidt to clarify the comment he made when providing information about alternative testing methods in which he said that masonry heaters would not be subject to the 10 gram limit and would probably be okay—that this limit would not be appropriate for them.

Mr. Schmidt said his research to date was not comprehensive but he believed there are three or four different testing methods that have been in use for masonry heaters since in the 1990s, which differ from testing for wood stoves and outdoor wood boilers. As a result, he was not certain that the 10 grams per hour limit would apply. Additional discussion followed with Mr. Hanson saying that he believed masonry heaters should be allowed but his point was that the details in the proposed changes as to why or how were unclear. Mr. Schmidt said more research was needed in order to advance the discussion.

A. Wilkinson: He said emissions during the fire-up time of a masonry heater might exceed the limit, whereas later in the day they might not, based on a description given as to how they operate. He asked what the basis for the limitations would be when masonry heaters might be running all the time, for example, during a Stage II Air Alert. Based on his experience using this type of device, the whole valley gets up at 6:00 a.m. and lights fires. From 6:00 a.m. until however long it takes for the particulate to settle out, the air quality is bad. He said masonry heaters should be required to meet the 10 grams per hour limit. Outside the city, considerations should change during situations when there are extremely cold temperatures and no electricity.

Mr. Schmidt said masonry heaters should be clean burning. All types of devices are likely to be used more during very cold days, which is why the department requires standard laboratory testing procedures as much as possible. They could still be installed outside the Air Stagnation Zone. There are 23 pages of EPA approved devices. Outside the city, people will still be allowed to have wood stoves and use them. Dr. Smith said that it could not be answered at that time as to how the air quality standards would be applied during an emergency other than to say they would be dealt with in a reasonable fashion.

Ms. Curtiss asked if the proposed Impact Zone M would be expected to have pellet stoves, as is the case in the Air Stagnation Zone. Mr. Schmidt said pellet stoves are not required in Zone M. The difference for this zone is that there would be sole source permitting options

during Stage II warnings whereas other areas would not require sole source permits. Ms. Curtiss asked for clarification: when talking about the masonry heaters was Mr. Schmidt talking about fireplaces or some other type of device? He said masonry fireplaces are a specific type of masonry heater designed to specific methods. They have a small size fire that burns all at once, very hot and very clean. They produce minimal emissions. The large amount of masonry heats up and pulses heat. Mr. Hanson said masonry heaters are defined by a series of definitions. The terms “masonry heater” and “masonry fireplace” are often confused with one another and used interchangeably, but they not the same.

ITEM 3 SET HEARING TO ADOPT REVISED AIR POLLUTION CONTROL PROGRAM REGULATIONS

Dr. Smith indicated that, having heard the proposed revisions, the board needed to set a date for a public hearing to formally take public comments and, once ready to do so, adopt approved changes.

Staff Recommendation: Ms. Colburn made a recommendation to start the formal hearing at the board’s next meeting. Director Leahy asked whether a separate evening meeting should be considered, which has been the general practice when high turnout is expected. She also asked that it be made clear before the board closed its motion that the department is directed to add the two more restrictive proposals discussed earlier regarding inclusion of industrial boilers in proposed changes and providing public notice regarding possible use of Washington’s and Montana’s air quality index for guidance pertaining to issuance of air quality alerts and warnings. Dr. Smith confirmed staff should do so.

Board and staff members discussed the inability of various board members to attend the hearing if scheduled on particular dates, the option to hold the hearing during the day versus the evening, and scheduling options based on public notice requirements, the Memorial Day holiday, and the likelihood that the board would leave the public hearing open across more than one meeting before taking action to approve the proposed revisions. A suggestion was offered to staff members to check with Rural Initiatives as to when community councils are having meetings in order to introduce the proposal and gather public comments.

Mr. Carlson identified an alternative approach and noted the process does not end with board approval. The proposed revisions must also be presented to the City Council, the Board of County Commissioners, and the state’s Board of Environmental Review. Dr. Smith added that the City Council and the Board of County Commissioners must also hold public hearings. Ideally, problems with proposed revisions should be resolved during the phase in which the changes are before the board in order to avoid having to pass amendments back and forth with the City Council and the Commissioners. If either of party asks for changes, they must submit requests back to the Air Pollution Control Board.

Following discussion by board and staff members, it was agreed to schedule the public hearing and place the notice for public comments as soon as possible. Ms. Curtiss made a motion to set the public hearing on May 20, 2009 at 7:00 p.m., with the regular meetings of the three boards to follow on the afternoon of May 21, 2009.

Motion: The motion was unanimously approved to set the public hearing on proposed revisions to the Air Pollution Control Program regulations on May 20, 2009 at 7:00 p.m.

and to hold the regular meetings of the Health, Air Pollution Control, and Water Quality District Boards per their normal schedule.

ITEM 4 AIR QUALITY ADVISORY COUNCIL UPDATE

John Garberson, chair of the council, summarized the journal report given on a new type of battery that can absorb and discharge large amounts of electricity rapidly and can be recharged thousands of times. It has strong potential application for use to capture, store and discharge wind and solar-generated energy. Members also reviewed the draft of proposed revisions to the Air Pollution Control Program regulations and generally accepted the changes. At the health department's request, the advisory council appointed a subcommittee, which will meet and then provide a recommendation in May to the Air Pollution Control Board regarding proposed revisions to the regulations.

ITEM 5 PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA

No comments were given.

ITEM 6 BOARD AND STAFF COMMENTS ON ITEMS NOT ON THE AGENDA

No comments were given.

ADJOURNMENT: Dr. Smith declared the meeting adjourned at 2:12 p.m.

Respectfully submitted,

Ellen Leahy
Health Officer

Garon Smith
Chair