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Missoula City-County Air Pollution Control Board

April 23, 2009

**Board Members Present:** Dr. Alan Gabster; **Participating By Phone:** Dr. Garon Smith (Chair), Dr. Sandy Kuntz (Vice Chair), Jean Curtiss, and Ross Miller

**Board Members Excused:** Renee Mitchell and Eileen Sansom

**Health Department Staff Present:** Health Administration: Ellen Leahy and Julie Mohr; and Environmental Health: Jim Carlson and Ben Schmidt

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

**Others Present:** Guy Hanson, Michael Moore and Ron Scholl; **Participating By Phone:** Ron Pihl

**MEETING CALLED TO ORDER**

Dr. Smith called the meeting to order at 12:30 p.m.

**ITEM 1 POSTPONE MAY 20, 2009 HEARING ON PROPOSED REVISIONS TO THE AIR POLLUTION CONTROL PROGRAM REGULATIONS**

**Staff Recommendation:** Director Leahy recommended that the board take action to postpone the May 20, 2009 public hearing on proposed revisions to the Air Pollution Control Program regulations, which was set at their April 9th meeting.

- On whatever date scheduled, the public hearing is will be the first held by the board but the department expects the board will hold more than one on this matter. Decisions by the board will not take place at that first hearing.
- Staff would like more time for preparation, particularly for presentations in outlying communities to whom this type of information and regulation is new.
- As was the case in Frenchtown, the department expects large turnouts at upcoming sessions in other communities.

Director Leahy repeated that the first action recommended was to postpone the May 20th hearing. If accepted, she indicated staff would then like the board to hear and officially consider an additional proposal (Item 2), followed by action to set a new date for the first public hearing (Item 3). There were no questions from board members.

**Public Comments:** No comments were given.

Dr. Kuntz made a motion to postpone the May 20th public hearing to June 18th on proposed revisions to the Air Pollution Control Program regulations. Dr. Smith asked if she would amend her motion to only postpone the hearing because staff wanted to present something else before setting the new date. Item 3 on the agenda was to reschedule the meeting. She agreed. The combined comments of Dr. Smith and Jean Curtiss in favor of postponement were as follows:

- Dr. Smith will be out of town on May 20th.
- It would allow more time for the public to provide input from outlying areas.
- Other possible scopes of the issue are surfacing: it would be better to have a complete feel for and hear the broadest scope possible. The board can craft a final decision anywhere within that scope but once the language is in place they cannot go outside that scope in the final decision they make.

**Motion: The motion was unanimously approved to postpone the May 20th public hearing.**

**ITEM 2 STAFF PROPOSAL FOR SECOND OPTION TO PROPOSED REVISIONS TO THE AIR POLLUTION CONTROL PROGRAM REGULATIONS TO ALLOW CERTIFICATION OF OUTDOOR WOOD-FIRED HYDRONIC HEATERS WITH EMISSIONS CRITERIA SIMILAR TO NON-CATALYTIC WOOD HEATERS**

- **Attachment A**, “Missoula City-County Air Pollution Control Program: Chapter 9 Solid Fuel Burning Devices – April 1, 2009 Draft”
- **Attachment B**, “Staff’s Proposed Option B Revisions to Air Pollution Control Program Rule 9.203”
- **Attachment C**, “April 8, 2009 Letter From R. Pihl Regarding Proposed Masonry Heater Regulations”
- **Attachment D**, “April 23, 2009 E-mail from R. Pihl Regarding Proposed Masonry Heater Regulations”
- **Attachment E**, “May 5, 2008 Letter on Behalf of Central Boiler Inc. Regarding Proposed Outdoor Wood Boiler Regulations”

Dr. Smith announced the next topic was the staff proposal for a second option to allow certification of outdoor wood-fired hydronic heaters with emissions criteria similar to non-catalytic wood heaters. Jim Carlson, Director of Environmental Health indicated that the proposal was more expansive than that.

**Staff Proposal:** Mr. Carlson provided **Attachment B** with changes the department proposed to advertise as Option B to Rule 9.203, which deals with installation permit requirements outside the Air Stagnation Zone and lists a series of emission levels and types of test methods to be used:

- There were some changes in the language to improve wording and grammar.
- The major changes were to Rule 9.203 (1) (d) and (e). Rule 9.203 (1) (d) would provide for using EPA Test Method 28 OWHH to test outdoor wood-fired hydronic heaters and would set under that method a permissible emission level of 7.5 grams per hour. This is the same level of emissions used for non-catalytic wood stoves in Rule 9.203 (1) (b), which is the EPA standard for non-catalytic devices.
- Staff clarified the language in Rule 9.203 (1) (d) to allow the department to look at other types of devices such as masonry mass wood stoves (sometimes commonly called Russian masonry units)—which burn wood quickly at a very high rate in a relatively small fire chamber and then store the heat of combustion in a large thermal mass, such as brick. The heat is then re-radiated into the structure. The problem with these devices is

that there is not a good prescription or design for exactly how they are built so that the emissions can be compared equitably to other types of devices. The language listed in the rule provides for that possibility so that the emission level would again be set at 7.5 grams per hour. The department would have to approve the evaluative test method used or proposed to be used for that type of device on a case by case basis.

Director Leahy added that the department also proposed as a matter of process that the board add this as “Option B” so that there would be two side-by-side options to consider.

- Staff members were mindful of the need to put forward for public comment what could be the most stringent action taken. There might be discussion as to which is more stringent or less so, which still needs to take place among the public.
- The department did not want to replace what it had already put forward but to set an option off to the side for comparative reasons and also to get good public comment on it.

Dr. Smith called for questions from the board.

- In regard to Mr. Carlson’s comments about masonry stoves, Jean Curtiss asked if she heard correctly that Option B would address masonry devices. Mr. Carlson responded that it would—it provides the possibility for someone to submit a suggested design and test method for that type of device that could be approved. Dr. Smith noted that the letter (**Attachment C**) submitted by Mr. Pihl indicated that EPA is working on answering that question, which might help the board in the future.
- Director Leahy reminded board members that their packet contained **Attachments D** and **E** related to that discussion.
- Dr. Smith asked staff to fix grammatical errors so that Option B’s Rule 9.203 (1) (a) will read “a device equipped...” and Rule 9.203 (1) (b) will read “devices not equipped...”

**Public Comments:** Ron Pihl indicated he spoke with people in the masonry heater industry and thought they were comfortable with Rule 9.203 (1) (e).

- They would like to add to it, “or is covered by a voluntary program agreement with the U.S. EPA at the time of its installation.” There is a voluntary process underway right now with the Masonry Heater Association and the EPA.
- In an earlier message to the board (**Attachment C**), he asked the board to consider naming masonry heaters as solid fuel burning devices, which he believed they could be defined as under the ASTM standard and UL 1482. This was just done at the state level to get masonry heaters attached to the alternative energy tax program. It is a widely-recognized definition all over the U.S. It is happening parallel to the voluntary process with the EPA and thus is moving on two fronts. Mr. Pihl wanted to be sure that these devices are included one way or another in Chapter 9.

Mr. Carlson replied that it was important to understand that, with regard to all of the non-catalytic devices, the department tried to set the standard as a level playing field between the families of devices at 7.5 grams per hour as an acceptable level of emissions. If the department were to put in something that EPA may do on a voluntary basis, it might not keep that means of comparison in place. Likewise, hydronic heaters under the EPA process are not confined to less than 7.5 grams per hour. The department is trying to maintain a level playing field in response to public comments that this is what they should aim to do.

Jean Curtiss asked if the board could amend proposed rule changes at the information hearing if they were to go forward at this time with Option B excluded but then gather information at the hearing and want to make changes at that time. Marnie McClain said yes. Dr. Smith said he believed the board could do so but asked for Ms. McClain's input. He asked if the board came upon documentation that would make a masonry heater eligible to meet the 7.5 grams per hour guideline, could it be added in as a new sub-letter without going outside the scope of the notice, to which Ms. McClain responded the board could do so. It is exactly the kind of thing that the public process is intended to enable. Dr. Smith noted the importance of having language broad enough to craft the board's final decision within the scope of what has been noticed.

Guy Hanson commented that he believed Mr. Pihl's concern, and that of the masonry heater industry, is that the combustion takes place in these units in a very short time frame—typically in 30 minutes or less but they continue to produce heat for a 12-hour period of time. “As the process goes on, it may be appropriate to consider that 7.5 hours [*sic*] as an average over the heating period in the appliance as opposed to that specific time frame.”

- He expressed his thanks that the department was listening and proposing the changes.
- He completely endorsed the department's changes to Rule 9.203 (1) (d).

Dr. Smith noted that in the Option B language Rule 9.203 (1) (d) has the word “average” in it. The “average” language might need to be added into Rule 9.203 (1) (e) to take into account the information provided by Mr. Hanson. Mr. Hanson said it was worth considering. Dr. Smith asked Mr. Carlson to give an opinion:

- Mr. Carlson indicated he thought that was what the department intended. Dr. Smith suggested that perhaps it should be stated explicitly.
- Mr. Carlson said that generally devices are designed to control the flu and combustion air to respond to heat demand. They are generally required to be tested at several different rates of combustion or heat output but Russian stoves are designed to burn everything up quickly and efficiently. The thermal delay caused by the mass of the brick is what slows down the heat output. These devices burn less hot as opposed to burning at a higher or lower rate.
- The department fully recognizes that a test method for that type of device will have to be very different. However, the word “average” may not be appropriate because there may only be one burn rate to test, which is one of the reasons why the “average” language was not included in Rule 9.203 (1) (e). The concept of an average over a longer period of time is one that is probably appropriate to take into account—the heat is generated over a much longer period of time than the combustion occurs.

Mr. Pihl said he thought parties were referring to the average daily output. It is recognized under EPA's AP42 document that goes back to 1992 when there was an EPA audited test of 5 masonry heaters. It is defined in the white paper that was requested by the EPA a year ago, which Mr. Pihl submitted previously to Ben Schmidt in Environmental Health. Dr. Smith asked Ms. McClain if inclusion of Mr. Carlson's comments in the public record would be adequate to allow leaving out the specific “average emission rate” language from Rule 9.203 (1) (e) for now or if it should be added in now order to allow for further consideration later. Ms. McClain said it would not make a big difference: either way the board had adequate information. Dr. Smith noted that Mr.

Carlson's comment on the department's intent should be included in the public record, to which Director Leahy and Ms. McClain both agreed.

Mr. Carlson commented that AP42 is an EPA reference document for emission factors. It is very different from stack testing with regard to its use, although the information collected from the actual sampling is valuable. The purpose of the document is to talk about daily or hourly emissions so that it is possible to get a ballpark idea for a variety of devices (whether area, point, or industrial sources) as to what the loading is on any particular airshed or geographical area by virtue of a number of different sources within that area. He wanted the board to understand that comparing the emission factors in AP42 versus the proposed changes to emission standards in Rule 9.203 was like comparing apples to oranges.

Dr. Gabster noted that Mr. Pihl's letter (**Attachment C**) referenced a number of documents and asked if they had been submitted to the department. Ben Schmidt indicated the white paper was submitted and could be forwarded. Other documents are at the EPA's website. Mr. Pihl acknowledged Mr. Carlson's comments on information in the AP42 reference document and said that, with masonry heaters, everything is measured in grams per kilogram. He did not want to get into a tug-of-war over grams per hour versus grams per kilogram. The Washington state method shows the conversion for grams per hour to grams per kilogram. He believed that 7.5 grams per hour is roughly equal to 7.3 grams per kilogram, which equals out mathematically. Most of the masonry heaters averaged out at 2.8 grams per hour; thus, they fall well below any of the particulate emission levels being discussed here.

**Board Discussion:** Ms. Curtiss moved that the board add the proposed Option B as presented in **Attachment B**—with the grammatical corrections identified by Dr. Smith in Rule 9.203 (1) (a) to read “a device equipped...” and Rule 9.203 (1) (b) to read “devices not equipped...” Dr. Smith called for discussion on the motion. He said he thought the board understood what the department was seeking—a level playing field—and that it was commendable on a public front. He supported doing so.

**Motion: The motion was unanimously approved to add Option B with the grammatical corrections identified by Dr. Smith in order to provide two side-by-side options for proposed revisions to Rule 9.203.**

**New Item Upcoming Staff Recommendation to Exclude the Condon Area from Proposed Installation Requirements**

Director Leahy told the board that staff members will likely offer another recommendation. It was not ready in time to notice it on today's agenda; therefore, the board was not being and could not be asked to consider it as an amendment at that time. Because the area past the divide on Highway 83 and heading north from Condon technically is not part of the overall county airshed, the department believes it is not necessary that the new installation requirements go into effect in that area. Mr. Carlson explained that under inversion conditions, cold air flows downhill in the same drainage patterns as water. In the Swan, the drainage flows downhill north toward the Flathead airshed. At the present time there is not the level of concern about violating EPA's PM<sub>2.5</sub> standard. On that basis, it probably would not be appropriate to include the Swan drainage in Missoula County in the proposed regulatory changes with regard to wood stoves.

In response to questions from Ms. Curtiss and Dr. Kuntz, Mr. Carlson said that although the Swan drainage would be excluded, the Clearwater drainage (Seeley) would still be included. Monitoring in the Seeley Lake area indicates that they are very close to exceeding EPA's standard. If a problem develops in the Swan area, the state would be responsible for preparation of a State Implementation Plan (SIP) in all counties in except Missoula and would work in concert with Lake and/or Flathead County as the parties to make a request to this board if those sorts of requirements were necessary. Dr. Smith noted that, on a smaller scale, it is the same problem Missoula faces with drainage coming down the Bitterroot from Ravalli County. Director Leahy said the recommendation might be available by the May 21st board meeting. If for process reasons it is not, it can be included at the public hearing.

**ITEM 3        RESCHEDULE HEARING ON PROPOSED REVISIONS TO THE AIR POLLUTION CONTROL PROGRAM REGULATIONS**

**Staff Recommendation:** Director Leahy recommended to the board that the public hearing be rescheduled on June 18, 2009 at 7:00 p.m. A large, well-equipped forum is being secured if the board is available on that date. All board members indicated they would be available. Ms. Mohr indicated that Eileen Sansom and Renee Mitchell will also be available.

**Public Comments:** None were given.

Dr. Kuntz made a motion to set the public hearing on June 18, 2009.

**Motion: The motion was unanimously approved to reschedule the public hearing on proposed revision to the Air Pollution Control Program rules on June 18, 2009 at 7:00 p.m.**

**ITEM 4        PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA**

No comments were given.

**ITEM 5        BOARD AND STAFF COMMENTS ON ITEMS NOT ON THE AGENDA**

Director Leahy expressed her thanks for participation by board members in the extra meeting. Dr. Smith thanked the department for their work.

**ADJOURNMENT:** Dr. Smith declared the meeting adjourned at 1:02 p.m.

Respectfully submitted,

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Ellen Leahy  
Health Officer

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Garon Smith  
Chair