

Trevor Fulton

From: Brefczynski, Brandon E (DEC) <brandon.brefczynski@alaska.gov>
Sent: Thursday, February 06, 2014 10:33 AM
To: Linda Hay; Edwards, Alice L S (DEC)
Cc: Trevor Fulton
Subject: RE: CSHB163
Attachments: proposedRegs.pdf; top_questions_fact_sheet.pdf

Linda,

Below is a response to your questions about CSHB 163 version G and DEC's draft PM 2.5 regulations prepared Alice Edwards. I have also attached a copy of the draft regulations and some of the top questions DEC received during the open houses.

We look forward to meeting with you to discuss this in further detail. Please let us know if you have questions

Regards,

Brandon

Attached are DEC's draft regulations that were out for public review and comment from September 19, 2013 through January 24, 2014. There are three areas of the draft regulations that are most relevant to CSHB163.

- Establishing the federally required air episode thresholds for fine particulate matter (PM_{2.5}) in 18 AAC 50.245.
- Revising 18 AAC 50.075(b) to add flexibility related to the use of wood fired heaters during an air quality episode under 18 AAC 50.245
- Establishing a new section, 18 AAC 50.076, that sets fuel requirements for what can be burned in solid fuel (wood and coal) heating devices within the PM_{2.5} non-attainment area

The current version of the bill actually only lifts one small part of the regulation proposal, the proposed fine particulate matter (PM_{2.5}) concentration that would trigger an "Air emergency." The bill proposes that a burn ban could only be called at a very high pollutant concentration (one that would have effects even on healthy individuals) and states that only the governor can call the ban. However, the latest bill version appears primarily focused on changing the authorities that relate to the implementation of 18 AAC 50.075(b). DEC's regulation proposal on fuel requirements focuses on what can be burned in solid fuel heaters, while the bill focuses on what cannot be burned.

During the course of the public comment period, DEC held four open houses in the Fairbanks North Star Borough and responded to questions on the regulation proposals. The open house materials and responses remain available on the internet at: http://dec.alaska.gov/air/anpms/comm/fbks_pm2-5_proposed-regs.htm. Attached are the questions and responses as some of them may help to provide additional context for the committee co-chairs.

DEC also held two hearings on the proposed regulations and the public comment period closed on January 24th. DEC received hundreds of comments on the proposal. It will take some time to review and evaluate the comments, make recommendations to the Commissioner for any revisions, and finalize decisions on the regulations. We anticipate this will take us at least two months to complete. Once the Commissioner adopts the regulations they will be sent to Department of Law for their legal review before they would head to the Lt. Governor's office. It is possible that portions of the regulation revisions resulting from public comment may need to be released again for further public review; DEC

would plan to do this along with the Fairbanks air quality plan, which we plan to have out for public review in the next couple of months.

While this regulation process continues, DEC continues working with the Borough to finalize a draft State Implementation Plan for the Fairbanks North Star Borough PM2.5 non-attainment area. These regulations will feed into the air quality plan for the area and factor into the emission reduction benefits that we can claim within the plan. The goal is for the plan to be released for public comment around, or just after, the time that the regulations are adopted. Given the ongoing health concerns and the fact that EPA recently proposed a new planning deadline at the end of this calendar year, DEC is working expeditiously to complete the plan and get it submitted to EPA as soon as possible.

DEC recognizes that feedback coming from the public review process of the air quality plan may result in additional changes to, or removal of, control programs or regulations that are proposed. DEC has been attempting to vet the key state regulatory pieces with the public prior to inclusion in the plan, so that the plan which is released for public review already contains that initial public perspective. Significant changes would result in the need to revise technical demonstrations for compliance and the addition of other controls to make up the loss of any emission benefits. This has the potential to extend the timeline for completing and submitting the plan to EPA.

From: Linda Hay [mailto:Linda.Hay@akleg.gov]
Sent: Tuesday, February 04, 2014 10:29 AM
To: Edwards, Alice L S (DEC)
Cc: Brefczynski, Brandon E (DEC); Trevor Fulton
Subject: CSHB163

Alice – Can you please clarify for the co-chairs how much of CSHB163 is actually a part of your draft regulations. Please provide us with a copy of those draft regs and what the timeframe would be going forward towards adoption of the regs. Also, what is the process if any changes are to made.

Thanks
lh

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**ALASKA DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**



18 AAC 50 AIR QUALITY CONTROL

Proposed Regulation Changes Pertaining to:

**Open Burning,
Wood-fired Heating Device Visible Emission Standards,
Solid Fuel-Fired Heating Device Fuels,
Wood-Fired Heating Device Standards,
&
Fine Particulate Matter (PM-2.5) Air Episode and Advisories.**

Public Review Draft

September 19, 2013

**Sean Parnell
Governor**

**Larry Hartig
Commissioner**

ALASKA ADMINISTRATIVE CODE

TITLE 18- DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Chapter 50. Air Quality Control

Article 1. Ambient Air Quality Management

Proposed regulation amendments:

Amending Section 50.065: Open burning;

Amending Section 50.075: Wood-fired heating device visible emission standards;

Adding a new section: Section 50.076 Solid fuel-fired heating device fuel requirements;

Adding a new section: Section 50.077 Wood-fired heating device standards;

Amending Section 50.245: Air quality episodes and advisories; and

Amending Section 50.990: Definitions.

18 AAC 50.065(f) is amended to read:

(f) **Wood Smoke Control and PM-2.5 Non-Attainment Areas**. Open burning is prohibited between November 1 and March 31 in all [A] wood smoke control areas [AREA] identified in 18 AAC 50.025(b) **and in all PM-2.5 non-attainment areas identified in 18 AAC 50.015(b)(3)**.

18 AAC 50.075(b) is amended to read:

(b) **The department may prohibit operation of** [A PERSON MAY NOT OPERATE A] wood-fired heating devices [DEVICE] in an area for which the department has declared an air quality episode under 18 AAC 50.245.

18 AAC 50 is amended by adding a new section to read:

18 AAC 50.076. Solid fuel-fired heating device fuel requirements. (a) A person operating a solid fuel-fired heating device in areas identified in 18 AAC 50.015(b)(3) may only use the following fuels:

(1) For wood burning devices:

(A) clean wood;

(B) wood pellets made from clean wood;

(C) manufacturer recommended starter fuels including home heating oil, propane, natural gas or wood-based material for dual-fired hydronic heaters; and

(D) biomass fuels approved by the manufacturer.

(2) For coal burning devices:

(A) coal; and

(B) coal pellets.

18 AAC 50 is amended by adding a new section to read:

18 AAC 50.077. Wood-fired heating device standards. (a) **Applicability.** These regulations apply to

(1) air quality and special protection areas identified in 18 AAC 50.015(b)(3);

(2) any manufacturer, supplier, distributor or person intending to sell, lease, distribute, market, or convey a new wood-fired heating device for use in areas listed in (a)(1) of this section; and

(3) any person who owns or operates a wood-fired heating device in areas listed in (a)(1) of this section.

(b) **Prohibitions.** Except as provided in (4) of this subsection, no person subject to (a) of this section may supply, distribute, lease, sell, convey, or install

(1) a new hydronic heater unless the model has been

(A) tested by an EPA-accredited lab to meet the particulate matter emission limit of 2.5 grams per hour using the EPA hydronic heater test procedure, “Test Method 28 WHH for Measurement of Particulate Emissions and Heating Efficiency of Wood-Fired Hydronic Heating Appliances”, approved by EPA as of October 12, 2011 and adopted by reference; or

(B) listed on EPA’s Phase II White Tag Model list, provided the unit meets the emission standard in (A) of this subsection and its rated size is under 300,000 BTU as of *{the effective date of regulation}*;

(2) a new woodstove unless the model has been

(A) tested by an EPA-accredited lab to meet the particulate matter emission limit of 2.5 grams per hour using the applicable EPA Test “Method 28” and appropriate emission concentration measurement procedures “5G” or “5H” found in Appendix A to Part 60, revised as of December 23, 1971 and adopted by reference; or

(B) listed on EPA’s certified woodstove list, provided the unit meets the emission standard in (A) of this subsection and its rated size is under 300,000 BTU, as of six months after the *{effective date of regulation}*.

(3) a new wood-fired heating device greater than 300,000 BTU unless the model has been

(A) tested by an EPA-accredited lab to meet the particulate matter emission limit of 2.5 grams per hour using ASTM test procedures E2515-11, approved as of November 1, 2011, and E2618-09, approved as of February 15, 2009, and adopted by reference.

(4) the prohibitions in subsection (b) do not apply to:

(A) the supply, distribution, lease, sale, conveyance or installation of a new wood-fired device by a person subject to (a) of this section where that person has confirmed in writing with the buyer or user of the device that they intend the device will be installed and used in an area other than one of the areas described in (a) (1) of this section.

(B) the sale, lease or conveyance of a wood-fired heating device where the device is being sold, leased or conveyed as part of a single or multifamily residence and the device was installed in that residence prior to *{effective date of regulation}*.

(Eff. __/__/____, Register __)

Authority: AS 46.03.020 AS 46.14.020 Sec. 30, ch. 74, SLA 1993
AS 46.14.010 AS 46.14.030

18 AAC 50.245(a) is amended to read:

18 AAC 50.245. Air quality episodes and advisories. (a) The department or a local air quality control program authorized by the department under AS 46.14.400 may declare an air quality episode and prescribe and publicize curtailment action if the concentration of an air pollutant in the ambient air has reached, or is likely in the immediate future to reach, any of the concentrations established in Table 6 in this subsection.

Table 6.

Concentrations Triggering an Air Quality Episode

Episode Type	Air Pollutant	Concentration in micrograms per cubic meter {and in ppm where applicable}
Air alert	Sulfur dioxide	365 (24-hour average) {0.14 ppm}
	<u>PM-2.5</u>	<u>56 (24-hour average)</u>
	PM-10	150 (24-hour average)
	PM-10 from wood burning (wood smoke control areas)	92 (24-hour average)

	Carbon monoxide	10,000 (8-hour average) {8.7 ppm}
Air warning	Sulfur dioxide	800 (24-hour average) {0.31 ppm}
	<u>PM-2.5</u>	<u>251 (24-hour average)</u>
	PM-10	350 (24-hour average)
	Carbon monoxide	17,000 (8-hour average) {15 ppm}
Air emergency	Sulfur dioxide	1,600 (24-hour average) {0.61 ppm}
	<u>PM-2.5</u>	<u>351 (24-hour average)</u>
	PM-10	420 (24-hour average)
	PM-10 from wood burning (wood smoke control areas)	During an air alert, a concentration measured or predicted to exceed 92 (24-hour average), and to continue to increase beyond the concentration that triggered the air alert

	Carbon monoxide	34,000 (8-hour average) {30 ppm}
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18 AAC 50.245(b) is amended to read:

(b) The department or a local air quality control program authorized by the department under AS 46.14.400 will declare an air quality advisory if, in its judgment, air quality or atmospheric dispersion conditions exist that might threaten public health.

18 AAC 50.245(c) is amended to read:

(c) If the department or a local air quality control program authorized by the department under AS 46.14.400 declares an air quality advisory under (b) of this section, the department or a local air quality control program authorized by the department under AS 46.14.400 will

...

(Eff. 1/18/97, Register 141; am 10/1/2004, Register 171; am __/__/____, Register __)

Authority: AS 46.03.020 AS 46.14.020 Sec. 30, ch. 74, SLA 1993
AS 46.14.010 AS 46.14.030

18 AAC 50.990(123) is amended to read:

(123) "wood-fired heating device" means a device designed **or used** for wood combustion so that usable heat is derived for the interior of a building; "wood-fired heating device" includes wood-fired **or pellet-fired** stoves, fireplaces, **wood-fired forced air furnaces**, wood-fired **or pellet-fired** cooking stoves, **hydronic heaters** and combination fuel furnaces or boilers that burn wood; "wood-fired heating device" does not include a device that is primarily a part of an industrial process and incidentally provides usable heat for the interior of a building.

18 AAC 50.990 is amended by adding new paragraphs to read:

(135) "clean wood" means wood that has no paint, stains, or other types of coatings, and wood that has not been treated with preservatives including copper chromium arsenate, creosote, or pentachlorophenol.

(136) "hydronic heater" means a fuel burning device, including wood boilers and pellet boilers, designed to

(A) burn wood, biomass or other solid fuels;

(B) that the manufacturer specifies for installation in structures not normally occupied by humans (e.g., garages); and

(C) heats building space or water via the distribution, typically through pipes, of a fluid heated in the device, typically water or a water/antifreeze mixture.

(137) "solid fuel-fired heating device" means a device designed or used for wood or coal combustion so that usable heat is derived for the interior of a building; "solid fuel-fired heating device" includes wood-fired heating devices, coal stoves, coal forced air furnaces, coal-fired cooking stoves, coal-fired hydronic heaters and combination fuel furnaces or boilers that burn

wood and coal; “solid fuel-fired heating device” does not include a device that is primarily a part of an industrial process and incidentally provides usable heat for the interior of a building.

(138) “woodstove” or “wood heater” has the meaning given to “wood heater” in 40 C.F.R. 60.531, revised as of October 17, 2000 and adopted by reference. (Eff. 1/18/97, Register 141; am 6/14/98, Register 146; am 6/21/98, Register 146; am 9/4/98, Register 147; am 11/4/99, Register 152; am 1/1/2000, Register 152; am 2/2/2002, Register 161; am 5/3/2002, Register 162; am 11/15/2002, Register 164; am 8/8/2003, Register 167; am 10/1/2004, Register 171; am 12/3/2005, Register 176; am 12/30/2007, Register 184; am 7/25/2008, Register 187; am 4/1/2010, Register 193; am 12/9/2010, Register 196; am 9/17/2011, Register 199; am 9/14/2012, Register 203; am __/__/____, Register ____)

Authority:	AS 44.46.025	AS 46.14.140	AS 46.14.250
	AS 46.03.020	AS 46.14.150	AS 46.14.255
	AS 46.03.710	AS 46.14.160	AS 46.14.280
	AS 46.14.010	AS 46.14.170	AS 46.14.285
	AS 46.14.020	AS 46.14.180	AS 46.14.290
	AS 46.14.030	AS 46.14.210	AS 46.14.300
	AS 46.14.120	AS 46.14.230	AS 46.14.560
	AS 46.14.130	AS 46.14.240	Sec. 30, ch. 74, SLA 1993

Alaska Department of Environmental Conservation

Division of Air Quality

TOP QUESTIONS ON DEC REGULATION PROPOSALS AND AIR QUALITY PLANNING PROCESS

Dear Fairbanks North Star Borough Resident,

DEC is holding four open houses in the greater Fairbanks area to answer questions residents have about a set of draft regulations currently out for public comment. The draft regulations include provisions that would apply statewide (including provisions describing when the public would receive alerts about unhealthy concentrations of fine particulate matter (also known as "PM2.5")) and provisions that would apply just to the "PM2.5 non-attainment areas" in the state. The draft regulations that would only apply to PM2.5 non-attainment areas include wintertime outdoor open burning restrictions, requirements to burn the appropriate clean wood or coal in solid fuel heating devices, and performance standards for new wood-fired stoves and outdoor hydronic heaters. Currently, the only PM2.5 non-attainment area is the one in the Fairbanks North Star Borough, but there is the possibility other areas of the state could go into non-attainment in the future.

Information on the draft regulations, upcoming open houses, public hearings and the various ways you can comment on the regulations can be found at: http://dec.alaska.gov/air/anpms/comm/fbks_pm2-5_proposed-regs.htm or you may call or email DEC staff, Scott Sloane, at 465-5176 or scott.sloane@alaska.gov. DEC is committed to working collaboratively with the Fairbanks and North Pole communities on workable and effective solutions, achieving the dual goals of healthy winter air and affordable heating for homes and businesses. Any comments you provide to DEC will be carefully considered as we work towards the final set of regulations. For everyone's convenience we have set out below some of the more frequently-asked questions from the first two open houses and DEC's responses. We will continue to post updates on our website.

Thank you for your interest and comments,

Alice Edwards
Director, Division of Air Quality

1) How will persons comply with the 'curtailment' of wood heating devices during a declared episode if they must use wood to keep their home warm during extreme cold weather (see 18 AAC 50.075(b))?

DEC wants to help ensure that people in the Fairbanks area can heat their homes with affordable fuels including wood. With this objective in mind, DEC is proposing to relax the current regulation that prohibits using wood as a fuel for heating when an air quality episode (described below under question 4) has been declared. The proposed revisions to 18 AAC 50.075(b) states, "the department may prohibit operation of wood-fired heating devices..." This change is meant to provide flexibility so DEC can allow residents who have only wood heat or need wood heat to keep their house warm in severe cold weather to continue to heat with wood during a declared air quality episode. Again, the current regulation, without the proposed change, would prohibit all wood-burning when an air episode is declared.

Based on past air quality conditions in the Fairbanks-North Pole area, the department thinks it will be important to include a section in the local air quality plan (which is still being developed by DEC and will be going out for public review and comment later this fall and winter) that would lay out how the department would address an air episode. Some options could include: subdividing the non-attainment area into smaller areas where potential episodes could be called with response options specifically tailored to what is reasonable and effective in that area; identifying the temperature range where a wood heater curtailment would risk safety and property (frozen pipes) and would not be considered a reasonable response option; identifying what meteorological data should be used and how, identifying how best to utilize the air monitors, identifying what types of exemptions to a curtailment program there should be and identifying how to implement those exemptions. While the outcome of this regulation process is not yet known, over the next few months, the Division of Air Quality will work to draft an approach for air episodes that can be included in the local air quality plan. Again, this plan would then be released for public review and comment in the next phase of the air quality planning process. DEC would continue to work with the community to develop all components of the plan.



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TOP QUESTIONS ON DEC REGULATION PROPOSALS
AND AIR QUALITY PLANNING PROCESS

2) **These regulations (18 AAC 50.245(a)) appear to nullify the citizen initiative passed in October 2012 that restricts the Fairbanks North Star Borough's authority for heating devices and fuels, is this true?**

A local ordinance established through citizen initiative in October 2012 limits the Fairbanks North Star Borough's ability to regulate, prohibit, curtail or issue fines or fees related to the sale, distribution, or operation of heating appliances and any type of combustible fuel. As consistently stated by DEC, it was not the intent of the Department when drafting these proposed regulations to undo the 2012 citizen initiative. The Department of Law recently reviewed the question whether the draft regulations, if adopted, would undo the 2012 citizen initiative and concluded that DEC's regulatory proposal does not impact the ordinance. The proposed regulations do not empower the Borough to act outside the authority of its duly-authorized air quality program and enabling ordinances. The Department of Law letter on this question is available on DEC's web site at: http://dec.alaska.gov/air/anpms/comm/fbks_pm2-5_questions_answers.html. With this said, DEC stresses that the public comment period on the draft regulations is still open and anyone who believes there are changes that should be made to the draft regulations to address any remaining concern about potential conflicts between the 2012 citizen initiative and the proposed regulations by DEC should still feel free to comment and suggest changes to the draft. When reviewing the proposed regulation, it might be helpful to keep in mind that other communities have or may in the future want to have a local air program. These regulations need to recognize some communities may give their local program more duties and authorities than some other communities.

3) **Why are there no regulations regarding the use of wet wood?**

While the use of wet wood leads to poor combustion and smoke, there is not yet a solution to ensure an ample dry wood supply in the Fairbanks North Star Borough throughout the wood-burning season. It is difficult to consider advancing a requirement for dry wood without having an adequate supply or providing an alternative option for those who purchase their wood. At this time, the State thinks that implementing public education and voluntary programs will assist in raising the awareness for residents to properly season wood and the increase availability of dry wood in the market. We continue to evaluate the issue of wet wood and encourage further discussion. DEC welcomes your suggestions and comments on this issue. The current proposal does not mean that a regulatory provision to address wet wood could not be brought forward in the future if needed to bring the community into attainment with the National Ambient Air Standard (NAAQS) for PM2.5, which is the legal requirement in the federal Clean Air Act that we must all meet. That standard is set to protect human health.

4) **If the 24-hour PM2.5 National Ambient Air Quality Standard (NAAQS) is 35 µg/m³, why is the lowest proposed episode trigger set at 56 µg/m³ (see 18 AAC 50.245(a)) ? Why not set the trigger at 25 or 30 µg/m³ to protect health?**

In the regulation proposal, a 24-hour PM2.5 concentration of 56 micrograms per cubic meter (µg/m³) would initiate the first level of a formal air episode, an alert. The department proposed this level as it is equivalent to the federal Air Quality Index value where air quality is deemed "Unhealthy" for all individuals. The proposed concentration is higher than the 35 µg/m³ 24-hour National Ambient Air Quality Standard (NAAQS) for PM2.5. The NAAQS is set at a level that is meant to protect sensitive populations, including children, the elderly, and those with existing medical conditions. The NAAQS level corresponds with the Air Quality Index value where air quality is deemed "Unhealthy for Sensitive Groups." Under the proposal, air quality advisories could still be called at PM2.5 concentrations between 35 and 55 µg/m³ (per 18 AAC 50.245(b)) along with requests for voluntary actions to curtail emissions. The department is seeking comment on the proposed episode levels.

Setting air quality episode concentration thresholds is a requirement for state's implementing the National Ambient Air Quality Standards under the Clean Air Act. Establishing the thresholds for the PM2.5 concentration levels that can trigger a formal air quality alert, air quality warning, and air quality emergency helps to provide a framework for DEC and local air



Alaska Department of Environmental Conservation

Division of Air Quality

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agencies as they work together to inform the public of poor air quality conditions and evaluate response actions. Air quality episodes as a result of human-caused air pollution should not be frequent events in any community; response actions to episodes are not meant to replace on-going formal control programs to bring an area into compliance with the health-based air quality standard. The development and implementation of an attainment plan will reduce the overall risk of areas reaching unhealthy levels of air pollution, the need to declare air episodes and the subsequent need to take actions for these significant but rarer air pollution events that could impact a broader sector of the public. One could view response to an air quality episode as similar to a fire department responding to a single dangerous fire while the development and implementation of the PM_{2.5} attainment plan is deciding what needs to be done to lower the risk of all fires in the future.

5) Why are there no emission standards proposed for coal stoves?

As part of the air quality planning effort, studies have been conducted to determine the specific sources of the pollution found on the monitor filters from within the non-attainment area. The studies found that the portion of particulate coming from coal burning is small compared to the particulate on the filters from wood burning. This is consistent with surveys of residents' home heating devices which show wood heaters are much more prevalent than coal heaters. Given that the majority of the problem, area wide, is wood smoke, the current proposed regulations are focused there. However, the department is very aware of citizen concerns regarding smoke from coal-fired heaters. Unfortunately, the U.S. EPA has not developed any emission standards for new residential coal-fired indoor stoves or outdoor boilers nor has EPA established any specific test methods or program to certify residential coal heating devices. As a result, DEC does not have an existing federal program or framework to use to make a regulatory decision on an emission standard for coal heaters. For DEC to regulate coal-fired heating devices, significant research is needed to establish standards for these devices. DEC would need to work with a testing laboratory to test and develop a method for certifying coal-fired heating devices and then use that method to test many types of coal-fired devices. This research, testing, and development would take time and resources. DEC continues to evaluate the need for and the options to address emissions from residential coal-fired heating devices. We welcome continued discussion and comment on this issue.

6) The hearings all during the day when people are working. Could the department hold a public hearing in the evening?

The department has received a number of comments related to the timing of the public hearing. The department will be issuing a supplemental notice that establishes an evening hearing to make it easier for those who wish to provide oral comments and can only make it to an evening meeting. Details on the new public hearing will be posted on the DEC web site at http://dec.alaska.gov/air/anpms/comm/fbks_pm2-5_proposed-regs.htm.

Additional questions and answers as well as more information on the regulation proposals and how to comment are available at: http://dec.alaska.gov/air/anpms/comm/fbks_pm2-5_proposed-regs.htm.



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