

HB

163

<TARGET><BILL>HB 163</BILL><SUBJECT>HB
163</SUBJECT><COMM>HRES28</COMM></TARGET>

**Alaska State Legislature
House of Representatives
Representative Tammie Wilson**

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**CS for House Bill 163 (RES) Version G
Sponsor Statement**

“An Act prohibiting a person from burning certain materials in a solid fuel burning device and relating to prohibitions on the burning of solid fuels”

Committee Substitute for House Bill 163 (RES) contains a list of unacceptable materials to be used in a solid fuel heating device. It only allows the Governor the authority to mandatorily shut down solid fuel burning devices during an air emergency. An air emergency for PM2.5 is defined as 351 micrograms per cubic meter (24-hour average). A sunset date of five years has been added.

The Fairbanks North Star Borough has been designated as a PM2.5 nonattainment area by the U.S. Environmental Protection Agency. Wood-fired space heating devices, predominantly wood/pellet stoves and hydronic heaters, are used by a growing number of Fairbank residents to heat homes and businesses. The amount of wood burning has nearly doubled since 2006 which is a direct response to increases in the price of heating oil and the lack of low-cost, clean-burning alternative fuels. A governmental agency should not be allowed to shut down a resident's right to utilize a certified appliance burning approved materials unless an emergency arises.

The Alaska Department of Conservation Peer Review states that weather is a primary problem in reaching attainment within Interior Alaska. The residents cannot change the geographic features of our area. This is an energy issue! Until we solve accessibility to affordable energy, those living in a cold environment with severe inversions will continue to utilize solid fuel burning devices.

HB163 will prevent burn bans except for an emergency while addressing our air quality issues with programs like the woodstove change-out, weatherization programs; advanced solid fuel burning device technology and the access to affordable gas will our air see a substantial improvement.

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CS for House Bill 163(RES)

"An Act prohibiting a person from burning certain materials in a solid fuel burning device; relating to solid fuel burning device emission standards; and relating to prohibitions on the burning of solid fuels."

Committee Substitute for House Bill 163 (RES) will establish a new emission standard for solid fuel burning devices within Environmental Protection Agency designated PM 2.5 nonattainment areas in the state by allowing only the cleanest burning devices to be sold at local retail stores. Those who have a solid fuel device currently installed are grandfathered under the new emission standard and would not need to convert their device.

Currently, a PM 2.5 nonattainment area has been designated by the U.S. Environmental Protection Agency within the Fairbanks North Star Borough. During the winter months, air quality status can reach unhealthy levels for many of the people who reside within the nonattainment area.

CSHB 163(RES) ensures the most efficient EPA certified appliances are installed as homeowners within PM 2.5 nonattainment areas naturally upgrade their units, saving Alaskans money by reducing the cost of space heat. Additionally, by installing the best technology, air quality at a neighborhood and regional level will also improve. This is important for the overall health of the communities and for achieving federal attainment with EPA. Finally, CSHB 163(RES) guarantees an individual's right to use a solid fuel burning device in accordance with their budget and local and state law.

The consequences of not reaching EPA PM 2.5 attainment status stretch beyond health concerns. If attainment is not reached by 2014, the EPA could sanction the state of Alaska by withholding Federal highway funds amounting in the millions of dollars. This would prevent many of Alaska's roads and transportation infrastructure from being constructed or upgraded. CSHB 163(RES) is a proactive, statewide bill and will hopefully prevent additional communities from becoming a PM 2.5 non-attainment area.

Committee Substitute for House Bill 163 will be another tool to avoid EPA sanctions, while also improving energy efficiency and the health of Alaska's residents within EPA designated PM 2.5 nonattainment areas.

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House Bill 163

"An Act prohibiting a person from burning certain materials in a solid fuel burning device; relating to solid fuel burning device emission standards; and relating to prohibitions on the burning of solid fuels."

House Bill 163 will establish a new emission standard for solid fuel burning devices within the State by allowing only the cleanest burning devices to be sold at local retail stores. Those who have a solid fuel device currently installed are grandfathered under the new emission standard and would not need to convert their device.

Currently, a PM 2.5 nonattainment area has been designated by the U.S. Environmental Protection Agency within the Fairbanks North Star Borough. During the winter months, air quality status can reach unhealthy levels for many of the people who reside within the nonattainment area.

HB 163 ensures the most efficient EPA certified appliances are installed as homeowners naturally upgrade their units, saving Alaskans money by reducing the cost of space heat. Additionally, by installing the best technology, air quality at a neighborhood and regional level will also improve. This is important for the overall health of the communities and for achieving federal attainment with EPA. Finally, HB 163 guarantees an individual's right to use a solid fuel burning device in accordance with their budget and local and state law.

The consequences of not reaching EPA PM 2.5 attainment status stretch beyond health concerns. If attainment is not reached by 2014, the EPA could sanction the state of Alaska by withholding Federal highway funds amounting in the millions of dollars. This would prevent many of Alaska's roads and transportation infrastructure from being constructed or upgraded. HB 163 is a proactive, statewide bill and will hopefully prevent additional communities from becoming a PM 2.5 non-attainment area.

House Bill 163 will be another tool to avoid EPA sanctions, while also improving energy efficiency and the health of Alaska's residents.

28-LS0248\G
Nauman
1/27/14

CS FOR HOUSE BILL NO. 163()
IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-EIGHTH LEGISLATURE - SECOND SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVE TAMMIE WILSON

A BILL
FOR AN ACT ENTITLED

1 **"An Act prohibiting a person from burning certain materials in a solid fuel burning**
2 **heating device; and relating to prohibitions on the operation of solid fuel burning**
3 **heating devices."**

4 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

5 *** Section 1. AS 46.14.400 is amended by adding a new subsection to read:**

6 (k) Except in a wood smoke control area designated by name in state
7 regulation on the effective date of this Act, the operation of a solid fuel burning heating
8 device may not be prohibited under this section unless

9 (1) the prohibition is authorized by the governor; and

10 (2) the 24-hour average of air pollutants for the region exceeds 351
11 micrograms for each cubic meter of air.

12 *** Sec. 2. AS 46.14 is amended by adding a new section to article 5 to read:**

13 **Sec. 46.14.570. Solid fuel burning heating devices. (a) A person may not**
14 **burn or cause to be burned in a solid fuel burning heating device**

- 1 (1) garbage;
- 2 (2) treated wood;
- 3 (3) plastics;
- 4 (4) rubber products;
- 5 (5) animals;
- 6 (6) asphaltic products;
- 7 (7) waste petroleum products;
- 8 (8) paints;
- 9 (9) railroad ties; or
- 10 (10) other materials prohibited by the department under AS 46.03.020
- 11 and AS 46.14.010.

12 * Sec. 3. AS 46.14.990 is amended by adding new paragraphs to read:

13 (29) "solid fuel burning heating device" means a device designed or
14 operated for wood or coal combustion so that usable heat is derived for the interior of
15 a building and does not include a device that is primarily a part of an industrial process
16 and incidentally provides usable heat for the interior of a building;

17 (30) "wood smoke control area" means a geographic location where a
18 wood-burning activity has resulted in two or more discontinuous 24-hour periods
19 when the ambient exposures of air pollutants solely caused by wood-burning activity
20 has reached or exceeded 150 micrograms for each cubic meter of air.

21 * Sec. 4. AS 46.14.400(k), 46.14.570, 46.14.990(29), and 46.14.990(30) are repealed
22 January 1, 2019.

28-LS0248VR
Nauman
4/4/13

CS FOR HOUSE BILL NO. 163()
IN THE LEGISLATURE OF THE STATE OF ALASKA
TWENTY-EIGHTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVE TAMMIE WILSON

A BILL
FOR AN ACT ENTITLED

1 **"An Act prohibiting a person from burning certain materials in a solid fuel burning**
2 **heating device; relating to solid fuel burning heating device emission standards; and**
3 **relating to prohibitions on the burning of solid fuels."**

4 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

5 *** Section 1. AS 46.14 is amended by adding a new section to article 5 to read:**

6 **Sec. 46.14.570. Solid fuel burning heating devices. (a) A person may not**
7 **burn or cause to be burned in a solid fuel burning heating device**

- 8 (1) garbage;
- 9 (2) treated wood;
- 10 (3) plastics;
- 11 (4) rubber products;
- 12 (5) animals;
- 13 (6) asphaltic products;
- 14 (7) waste petroleum products;

1 (8) paints;
2 (9) railroad ties; or
3 (10) other materials prohibited by the department under AS 46.03.020
4 and AS 46.14.010.

5 (b) A person may not sell, offer to sell, or knowingly advertise to sell, in the
6 state a solid fuel burning heating device that exceeds the particulate air contaminant
7 emission standard set by the department under (c) of this section more than 120 days
8 after the standard is set by the department under (c) of this section. This subsection
9 does not apply to fireplaces.

10 (c) The department shall adopt regulations that establish particulate air
11 contaminant emission standards for all new solid fuel burning heating devices for
12 areas designated by the United States Environmental Protection Agency to be
13 nonattainment areas under 42 U.S.C. 7407 or air quality maintenance areas. For
14 purposes of this section, the department may adopt emission standards developed by
15 the United States Environmental Protection Agency for new solid fuel burning heating
16 devices consistent with the maximum emission levels established in this section. A
17 particulate air contaminant emission standard for a solid fuel burning heating device
18 adopted under this section may not exceed two and one-half grams of particulate
19 matter an hour for devices rated at or below 200,000 British thermal units of heat
20 output. For devices rated above 200,000 British Thermal Units of heat output, the
21 department may increase the particulate air contaminant emission standard in
22 maximum increments of two and one-half grams of particulate matter an hour for each
23 200,000 British Thermal Units of heat output. Before adopting a particulate air
24 contaminant emission standard under this section, the department shall release to the
25 public for comment a written fact sheet reporting the

- 26 (1) region in which the solid fuel burning heating device standard will
27 apply;
28 (2) types of solid fuel burning heating devices on which the standard
29 will apply;
30 (3) technological feasibility of the standard;
31 (4) economic feasibility of the standard;

1 (5) effect of the standard on human health and welfare; and

2 (6) the effect of the standard on the environment.

3 (d) The department shall establish a procedure to

4 (1) determine whether a new solid fuel burning heating device
5 complies with the particulate air contaminant emission standards adopted under (c) of
6 this section; and

7 (2) approve the sale of new solid fuel burning heating devices that
8 comply with the particulate air contaminant emission standards adopted under (c) of
9 this section.

10 (e) A state or local authority may not adopt a particulate air contaminant
11 emission standard for solid fuel burning heating devices other than the standard
12 adopted by regulation under (c) of this section.

13 (f) A particulate air contaminant emission standard for solid fuel burning
14 heating devices adopted under (c) of this section does not constitute an air quality
15 standard, an emissions limitation for hazardous air pollutants, or an emission standard
16 for a unit or stationary source for purposes of AS 46.14.010 and 46.14.015.

17 (g) In this section, "solid fuel burning heating device" means a device
18 designed or operated for wood or coal combustion so that usable heat is derived for the
19 interior of a building and does not include a device that is primarily a part of an
20 industrial process and incidentally provides usable heat for the interior of a building.

21 * Sec. 2. AS 46.14.570 is repealed December 31, 2018.

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CSHB163 (RES) Ver. G

Sectional Analysis

Section 1: Amends 46.14.400 by adding a new subsection

- Allows only the governor to call an air emergency for those not designated as a wood smoke control area.
- Sets the emergency at the 24-hour average of air pollutants for the region when it exceeds 351 micrograms for each cubic meter of air.

Section 2: Amends 46.14 article 5 by adding a new section

- Prohibits the burning of certain fuels in solid fuel burning heating devices.

Section 3: Amends 46.14.900 by adding definitions

- Defines "solid fuel burning heating device"
- Defines "wood smoke control area"

Section 4: Provides sunset clause

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CSHB 163(RES) ver. R

Sectional Analysis

Section 1: Amends 46.14 by adding new section AS 46.14.570 to article 5.

- (a) Prohibits the burning of certain fuels in solid fuel burning heating devices.
- (b) A person may not sell solid fuel burning heating devices that exceed the emission standard 120 days after the department sets the new standard. The emission standard does not apply to fireplaces.
- (c) The Department of Environmental Conservation shall establish particulate air contaminant emission standards for all solid fuel burning heating devices for areas designated as EPA nonattainment areas. The new solid fuel burning heating device emission standard will be 2.5 grams of particulate matter per hour for devices rated at or below 200,000 British thermal units. If a device exceeds 200,000 BTUs, the Department may increase the allowable emissions by maximum increments of 2.5 g/hr for each 200,000 BTUs. Before adopting a particulate air contaminant emission standard, the department shall provide a fact sheet for public comment discussing potential effects of the new standard.
- (d) The department shall establish a procedure to determine whether a solid fuel burning heating device complies with the new emission standard. The department shall establish a procedure for approving the sale of new solid fuel burning heating devices that comply with the new particulate air contaminant emission standard.
- (e) A state or local authority may not adopt a particulate air contaminant emission standard other than the standard adopted by the Department.
- (f) Clarifying that the device standard is not a limitation for hazardous air pollution or an emission standard for a stationary source.
- (g) Defines "solid fuel burning heating device".

Section 2: Provides sunset clause.

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HB 163 Sectional Analysis

Section 1: Provides limitation of burn bans for certain municipal air quality control programs.

Section 2: Adds new subsection under 46.14.400 prohibiting second or third class boroughs or a second class city from implementing solid fuel burning bans unless authorized by the governor in case of an emergency.

Section 3: (a) Prohibits the burning of certain materials. (b) A person may not sell a solid fuel burning device that exceeds the emission standard established by the Department of Environmental Conservation (DEC). (c) Establishes statewide particulate emission standards for solid fuel burning devices of 2.5 grams per hour for each 200,000 BTUs of heat output. Provides DEC with a procedure for adopting a new emission standard. (d) Establishes a procedure for approving the sale of a new solid fuel burning device that complies with the particulate emission standard. (e) A state or local authority may not adopt a particulate emission standard different than provided in (c). (f) Clarifying that the device standard is not a limitation for hazardous air pollution or an emission standard for a stationary source.

Fiscal Note

State of Alaska
2013 Legislative Session

Bill Version: HB 163
Fiscal Note Number: _____
() Publish Date: _____

Identifier: HB163-DEC-AQ-03-16-13
Title: REGULATION OF SOLID FUEL BURNING
DEVICES
Sponsor: T.WILSON
Requester: House Community & Regional Affairs Committee

Department: Department of Environmental Conservation
Appropriation: Environmental Health
Allocation: Air Quality
OMB Component Number: 2061

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2014 Appropriation Requested	Included in Governor's FY2014 Request	Out-Year Cost Estimates				
			FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
OPERATING EXPENDITURES	FY 2014	FY 2014					
Personal Services	***	***	***	***	***	***	***
Travel							
Services							
Commodities							
Capital Outlay							
Grants & Benefits							
Miscellaneous							
Total Operating	***	***	***	***	***	***	***

Fund Source (Operating Only)

None							
Total	***	***	***	***	***	***	***

Positions

Full-time							
Part-time							
Temporary							

Change in Revenues							
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Estimated SUPPLEMENTAL (FY2013) cost: 0.0

Estimated CAPITAL (FY2014) cost: 0.0

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? Yes
If yes, by what date are the regulations to be adopted, amended or repealed? 01/01/14

Why this fiscal note differs from previous version:

Not applicable, initial version.

Prepared By:	Alice Edwards, Director	Phone:	(907)465-5109
Division	Air Quality	Date:	03/16/2013 11:42 AM
Approved By:	Lynn Kent, Deputy Commissioner	Date:	03/16/13
	Department of Environmental Conservation		

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2013 LEGISLATIVE SESSION

BILL NO. HB 163

Analysis

Analysis/Assumptions: This legislation requires the development and implementation of regulations for particulate matter emission standards for solid-fuel burning equipment. It requires the department to establish regulations setting the emission standard using the most recent Environmental Protection Agency test methods (where available), make written findings to support the standard, and establish procedures to determine compliance and approve the sale of new solid fuel burning devices. The legislation requires that after January 1, 2014, solid fuel burning devices sold in Alaska must meet the department's regulations. The regulation must be adopted expeditiously in FY2014 to allow for continued sale of products within the state.

The legislation is written broadly encompassing all devices that burn "solid fuel". It is not limited to residential or commercial space heating devices. As a result, the legislation applies to a broad array of devices some of which do not have standard EPA test methods as part of current federal certification programs. This would include devices that burn coal, larger biomass boilers, coal-fired industrial units, incinerators of various sizes, charcoal grills, wood-fired camp stoves, and burn barrels. As DEC is required to set the emission standard and EPA certification test methods are not readily available for devices that burn coal or other solid fuels, it appears that a significant effort would be needed to research available test methods or develop new test methods for various types of equipment and fuels to establish reliable, reproducible test procedures for use in certifying equipment compliance with the emission standard.

An indeterminate fiscal note is provided because DEC is unsure of the intent of the legislature regarding the scope of this legislation's applicability to the broad array of solid-fuel burning equipment within the state. Should additional clarification be made, DEC can analyze the fiscal impacts and provide that information to the legislature. A General Fund source would be needed to establish this regulatory program.

Fiscal Note

State of Alaska
2013 Legislative Session

Bill Version: HB 163
Fiscal Note Number: _____
() Publish Date: _____

Identifier: HB163-DCCED-DCRA-03-15-13
Title: REGULATION OF SOLID FUEL BURNING
DEVICES
Sponsor: T.WILSON
Requester: House Community & Regional Affairs

Department: Department of Commerce, Community and
Economic Development
Appropriation: Community and Regional Affairs
Allocation: Community and Regional Affairs
OMB Component Number: 2879

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2014	Included in	Out-Year Cost Estimates				
	Appropriation Requested	Governor's FY2014 Request	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
OPERATING EXPENDITURES	FY 2014	FY 2014					
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants & Benefits							
Miscellaneous							
Total Operating	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Fund Source (Operating Only)

None							
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Positions

Full-time							
Part-time							
Temporary							

Change in Revenues							
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Estimated SUPPLEMENTAL (FY2013) cost: 0.0

Estimated CAPITAL (FY2014) cost: 0.0

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No
If yes, by what date are the regulations to be adopted, amended or repealed?

Why this fiscal note differs from previous version:

Not applicable, initial version.

Prepared By:	Scott Ruby, Director	Phone:	(907)269-4569
Division	Community and Regional Affairs	Date:	03/15/2013 10:30 AM
Approved By:	JoEllen Hanrahan, Director	Date:	03/16/13
	Administrative Services Division		

FISCAL NOTE ANALYSIS

**STATE OF ALASKA
2013 LEGISLATIVE SESSION**

BILL NO. HB 163 _____

Analysis

This bill would limit the ability of second or third class boroughs, or second class cities from prohibiting the burning of solid fuel unless authorized by the governor in case of an emergency. It would limit all municipalities from adopting a particulate air contamination emission standard for solid fuel burning devices other than the standard adopted by regulation by the state.

The bill would also prohibit a person from selling, offering to sell, or knowingly advertise to sell a solid fuel burning device that exceeds the emission standard set by the Department of Environmental Conservation.

There are no anticipated fiscal impacts to the Division of Community and Regional Affairs from this bill.

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EPA Certified Wood Stoves

Since 1988, EPA has required manufacturers of wood stoves to certify that each model line of wood stoves offered for sale in the United States comply with the EPA particulate emissions guidelines in the Clean Air Act.

EPA-certified wood stoves are cleaner and more efficient than a wood stove manufactured before 1988. As part of the certification process, each wood stove model line is required to undergo emissions testing in accordance with EPA Reference Method 28 and sampling methods 5G or 5H by an EPA-accredited laboratory.

Only after successfully passing these tests can a wood stove be offered for sale in the United States.¹

The current emissions levels allowed by the EPA are 7.5 g/hr for non-catalytic stoves and 4.1 g/hr for catalytic stoves. HB 163 will limit emissions to 2.5 g/hr for all types of solid fuel burning devices, including outdoor wood boilers.

¹ "Wood Stove Certification." *Compliance Monitoring*. Environmental Protection Agency, 6/16/2009. <<http://www.epa.gov/compliance/monitoring/programs/caa/whcert.html>>.

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State Implementation Plan (SIP)

Section 110 of the Clean Air Act, 42 U.S.C. §7410, requires state and local air pollution control agencies to adopt Federally approved control strategies to minimize air pollution. The resulting body of regulations is known as a State Implementation Plan (SIP).

SIPs generally establish limits or work practice standards to minimize emissions of the criteria air pollutants or their precursors.

Pollutants of concern include sulfur dioxide, particulate matter, nitrogen oxides, lead, carbon monoxide, and ozone.

EPA has established national ambient air quality standards (NAAQS) for these pollutants. SIPs also include special control strategies for nonattainment areas -- areas that are not meeting the NAAQS.

These control strategies often include items such as vehicle inspection and maintenance, lower gasoline vapor pressures, gas pump vapor recovery, and other reasonably available control technologies (RACT).

Finally, SIPs include preconstruction permit requirements for projects that may result in emission increases.¹

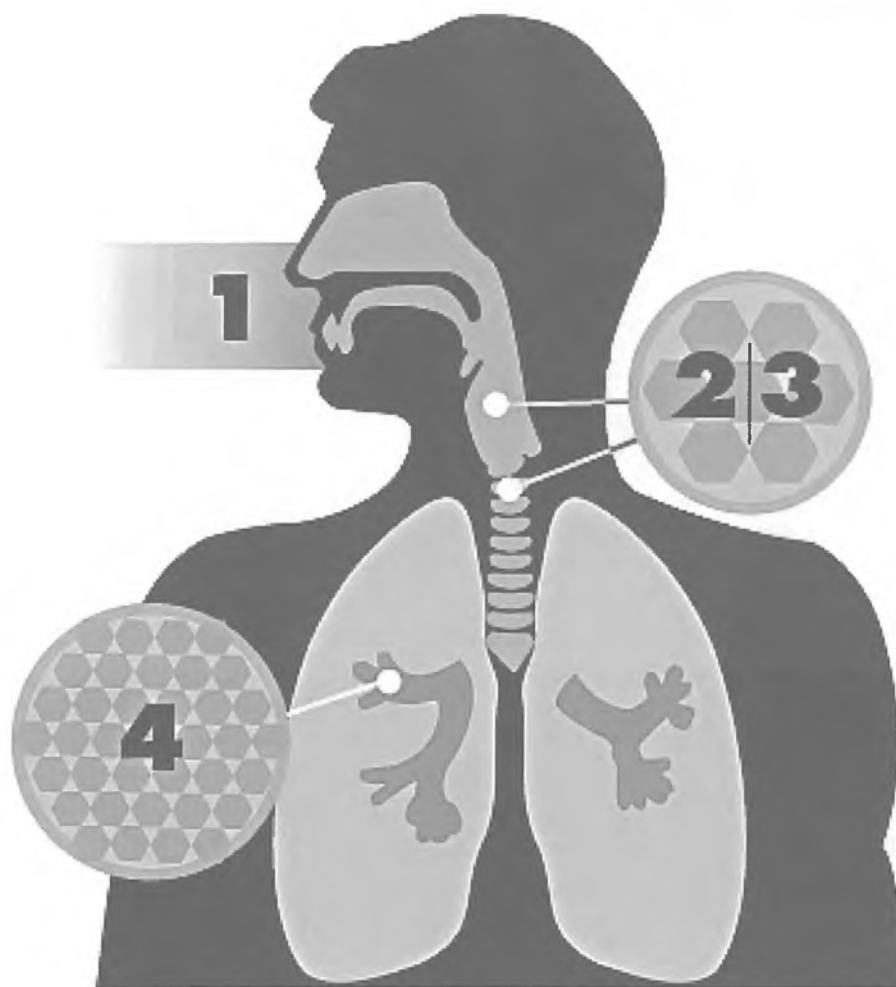
HB 163 will be included into the Fairbanks North Star Borough's SIP, providing a cost-neutral mechanism for reaching PM 2.5 attainment.

1

<http://yosemite.epa.gov/r10/AIRPAGE.NSF/f3f22921988a261b882569e5005ee8bb/b2ce4780021daa07882569de007ba77f?OpenDocument>

ALASKA STATE LEGISLATURE ~ REPRESENTATIVE TAMMIE WILSON

How Particulate Matter Enters Our Body



- 1** Particulate matter enters our respiratory (lung) system through the nose and throat.
- 2|3** The larger particulate matter (PM₁₀) is eliminated through coughing, sneezing and swallowing.
- 4** PM_{2.5} can penetrate deep into the lungs. It can travel all the way to the alveoli, causing lung and heart problems, and delivering harmful chemicals to the blood system.



Automobiles and Carbon Monoxide

What is Carbon Monoxide?

Carbon monoxide (CO) is a colorless, odorless, poisonous gas. A product of incomplete burning of hydrocarbon-based fuels, carbon monoxide consists of a carbon atom and an oxygen atom linked together.

Why is Carbon Monoxide a Public Health Problem?

Carbon monoxide enters the bloodstream through the lungs and forms carboxyhemoglobin, a compound that inhibits the blood's capacity to carry oxygen to organs and tissues. Persons with heart disease are especially sensitive to carbon monoxide poisoning and may experience chest pain if they breathe the gas while exercising. Infants, elderly persons, and individuals with respiratory diseases are also particularly sensitive. Carbon monoxide can affect healthy individuals, impairing exercise capacity, visual perception, manual dexterity, learning functions, and ability to perform complex tasks.

In 1992, carbon monoxide levels exceeded the Federal air quality standard in 20 U.S. cities, home to more than 14 million people.

How is Carbon Monoxide Formed?

Carbon monoxide results from incomplete combustion of fuel and is emitted directly from vehicle tailpipes. Incomplete combustion is most likely to occur at low air-to-fuel ratios in the engine. These conditions are common during vehicle starting when air supply is restricted ("choked"), when cars are not tuned properly, and at altitude, where "thin" air effectively reduces the amount of oxygen available for combustion (except in cars that are designed or adjusted to compensate for altitude).

Nationwide, two-thirds of the carbon monoxide emissions come from transportation sources, with the largest contribution coming from highway motor vehicles. In urban areas, the motor vehicle contribution to carbon monoxide pollution can exceed 90 percent.

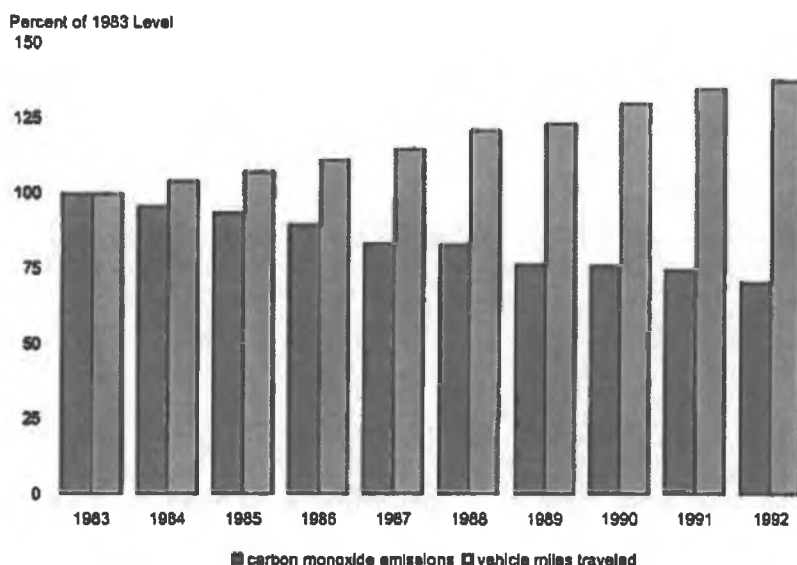
What's Been Done to Control Carbon Monoxide Levels?

The Clean Air Act gives state and local governments primary responsibility for regulating pollution from power plants, factories, and other "stationary sources." The U.S. Environmental Protection Agency (EPA) has primary responsibility for "mobile source" pollution control.

The EPA motor vehicle program has achieved considerable success in reducing carbon monoxide emissions. EPA standards in the early 1970's prompted automakers to improve basic engine design. By 1975, most new cars were equipped with catalytic converters designed to convert carbon monoxide to carbon dioxide. Catalysts typically reduce carbon monoxide emissions upwards of 80 percent. In the early 1980's, automakers introduced more sophisticated converters, plus on-board computers and oxygen sensors to help optimize the efficiency of the catalytic converter.

Today's passenger cars are capable of emitting 90 percent less carbon monoxide over their lifetimes than their uncontrolled counterparts of the 1960's. As a result, ambient carbon monoxide levels have dropped, despite large increases in the number of vehicles on the road and the number of miles they travel. With continued increases in vehicle travel projected, however, carbon monoxide levels will begin to climb again unless even more effective emission controls are employed.

Carbon monoxide emissions have dropped, despite increased travel



What Else Is Being Done?

Carbon monoxide emissions from automobiles increase dramatically in cold weather. This is because cars need more fuel to start at cold temperatures, and because some emission control devices (such as oxygen sensors and catalytic converters) operate less efficiently when they are cold.

Until 1994, vehicles were tested for carbon monoxide emissions only at 75° F. But recognizing the effect of cold weather, the 1990 Clean Air Act calls for 1994, and later, cars and light trucks to meet a carbon monoxide standard at 20° F as well.

The 1990 Clean Air Act also stipulates expanded requirements for Inspection and Maintenance programs. These routine emission system checks should help identify malfunctioning vehicles that emit excessive levels of carbon monoxide and other pollutants. The inspections will be complemented by requirements for on-board warning devices to alert drivers when their emission control systems are not working properly.

Another strategy to reduce carbon monoxide emissions from motor vehicles is to add oxygen-containing compounds to gasoline. This has the effect of "leaning out" the air-to-fuel ratio, thereby promoting complete fuel combustion. The most common oxygen additives are alcohols or their derivatives.

Several Western U.S. cities have successfully employed wintertime oxygenated gasolines for many years. The 1990 Clean Air Act expands this concept and requires that oxygenated gasolines be used during the winter months in certain metropolitan areas with high carbon monoxide levels (see a listing on the reverse side of this page).

For More Information:

The Office of Mobile Sources is the national center for research and policy on air pollution from highway and off-highway motor vehicles and equipment. You can write to us at the EPA National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, MI 48105. Our phone number is (313) 668-4333.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF THE
REGIONAL
ADMINISTRATOR

DEC 26 2012

The Honorable Tammie Wilson
State of Alaska, House of Representatives
301 Santa Claus Lane, Suite 3B
North Pole, AK 99705

Dear Representative Wilson:

Thank you for contacting the U.S. Environmental Protection Agency about wood smoke emissions in the Fairbanks North Star Borough. The attached document addresses both your questions to John Dupree as well as those sent to me, in a separate e-mail transmission, as Regional Administrator of the EPA Region 10.

We share your concern about the harmful effects of high levels of fine particle pollution in Alaska and across the country. As we have learned more about the health impacts, the EPA has taken a number of steps designed to reduce this type of pollution in our communities, including reducing emissions from new diesel vehicles, power plants and stationary diesel engines. The EPA has regulated particulate matter from wood heating appliances since 1988. The Agency is currently revising these regulations to incorporate more stringent emission standards for a range of wood heating appliances. We expect to release a draft rule for public comment this spring. We welcome any comments you might have on this proposal once it is available for comment.

The EPA has also developed a number of voluntary wood smoke reduction strategies and education materials which concerned citizens may use to reduce wood smoke emissions in their communities, under the national Burn Wise Program.

Thank you again for contacting the EPA. I hope this information will help your efforts to develop a legislative strategy to address wood smoke emissions in the Fairbanks North Star Borough. If you have any questions or need additional information, please feel free to contact Lucy Edmondson or me on my staff, at Edmondson.lucy@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis J. McLerran".

Dennis J. McLerran
Regional Administrator

Questions to John Dupree, EPA Headquarters:

I. December 7, 2012 email:

Question 1: Today it is -30 and all of our monitors comply with EPA standards. The area is utilizing their solid fuel devices but the air is clear. My question is: how do we figure in the impact of our weather to being in compliance every day of the year. Is there an appliance out there, which no matter how many are being used, can prevent our levels of PM 2.5 to exceed the current standards?

- *Response: The combination of pollution from woodstoves and other sources, extreme cold temperatures, and air stagnation causes your airshed to exceed the PM 2.5 standards. The Alaska Department of Environmental Conservation has compiled extensive data regarding wood smoke emissions and has performed analyses on PM 2.5 compliance. When ADEC runs scenarios of compliance for future years, or for proposed control strategies, they conduct the analysis using different temperature scenarios to determine the potential impact of control strategies for a range of weather conditions. I encourage you to contact the ADEC for more information on this and to follow-up with us if they do not have the analysis you seek.*

II. December 4, 2012 email:

Question 1: I am seeking information on how wood stoves are tested.

- *Response: Wood heating appliances such as wood stoves and pellet stoves are regulated by the EPA under regulations adopted under authority of the Clean Air Act (40 CFR Part 60, Subpart AAA). These regulations set forth a particulate matter emission limit of 7.5 grams per hour for non-catalytic wood stoves and 4.1 grams per hour for wood stoves equipped with catalysts. Manufacturers demonstrate compliance with these emission limits by having their stoves tested at an EPA accredited laboratory in accordance with EPA test methods. Based on the test results each wood stove model line is given a particulate matter emission rating. The test results must be reviewed and approved by EPA before the stove can be offered for sale in the United States. EPA certified wood stoves are 70% cleaner than non-certified wood stoves. For a listing of these wood stoves, visit our website at www.epa.gov/burnwise or www.epa.gov/compliance/monitoring/programs/caa/woodheaters.html.*

Question 2: Does the amount of emissions change due to the climate they are used in? Today the temperature is negative 40 and our air quality is poor.

- *Response: Yes, colder temperatures increase emissions of particulate matter and volatile organic compounds. ADEC's modeling mentioned above considers this.*

Question 3: If the state decided to only allow solid fuel devices that burn at a 2.5 emissions rate G/Hour would that significantly improve our air shed?

- *Response: Yes, limiting the installation and/or operation of wood heating appliances to those that emit no more than 2.5 grams per hour could greatly reduce wood smoke pollution and improve air quality in the Fairbanks North Star airshed. The State of Washington has seen reductions in air pollution levels by establishing a 4.5 gram per hour limit on wood stoves*

operated and or sold in that state. Rod Tinnemore from the Washington Department of Ecology can provide additional information on the effectiveness of this program. Mr. Tinnemore may be reached at 360-407-6978.

Question 4: Is the start up emissions on these cleaner units different?

- *Response: Yes, the startup period can be shorter and cleaner with an EPA certified wood stove or pellet stove. In addition, following proper start up practices (e.g., start fires with newspaper and dry kindling, and use only dry, well-seasoned wood) will help ensure fewer emissions.*

Question 5: I would appreciate any studies or information that could help us determine what our next step should be.

- *Response: Below are some links to additional information from the EPA and other sources that may be helpful to you as you determine your next steps.*
- *EPA Burnwise Public information: <http://www.epa.gov/burnwise/burnwisekit.html>*
- *Strategies for Reducing Residential Wood Smoke (<http://www.epa.gov/pm/measures/strategies-doc-8-11-09.pdf>)*
- *Libby Montana Wood Stove Change Out Final Report -- http://www.woodstovechangeout.org/fileadmin/PDF/Libby_Report-Final.pdf*
- *Wood Stove Change Out Tool Kit -- <http://www.epa.gov/burnwise/how-to-guide.html>*
- *Fireplace and Freestanding Stove Usage and Attitude Study -- <http://www.hpba.org/media/hearth-industry-prs/hpbexpo-2010-state-of-the-hearth>*

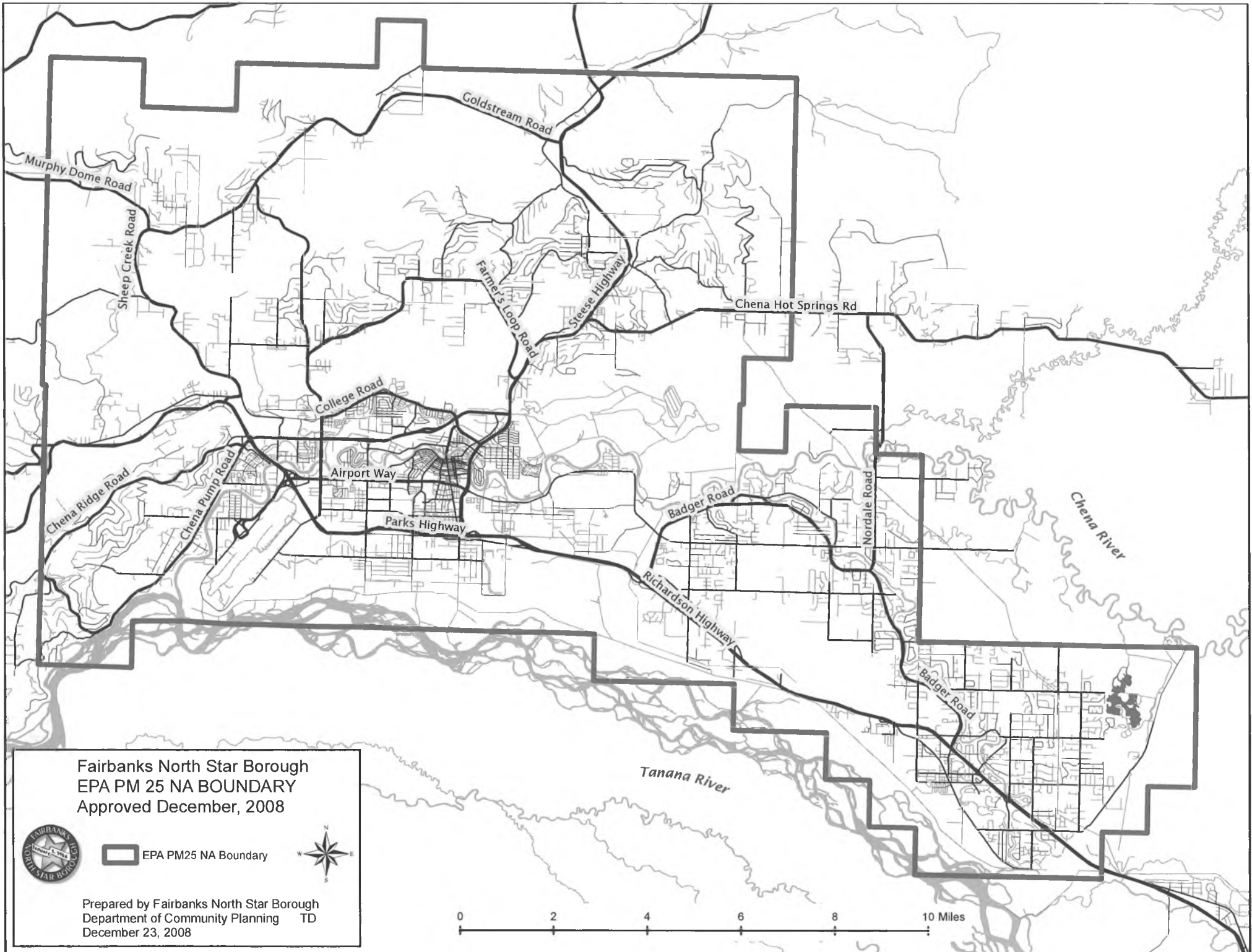
Questions to Dennis McLerran, EPA Region 10, December 10, 2012 email.

Question 1: I would like to know if we only allowed stoves 2 g/hour or less and hydronic heaters at 4 g/hour or less to be sold in the state whether or not this would help us reach attainment quicker.

- *Response: Yes, Limiting the installation and/or operation of wood stoves to those that emit no more than 2 grams per hour and hydronic heaters to 4 grams per hour could greatly reduce wood smoke pollution and improve air quality. As mentioned above, the State of Washington's tighter wood stove standards have helped to reduce air pollution in that state.*

Question 2: If we were only using lower emitted stoves, would that affect how much smoke is produced when one starts up their appliance?

- *Response: Yes, the startup period can be shorter and cleaner with an EPA certified wood stove or pellet stove. In addition, following proper start up practices (e.g., start fires with newspaper and dry kindling, and use only dry, well-seasoned wood) will help ensure fewer emissions.*



Fairbanks North Star Borough
 EPA PM 25 NA BOUNDARY
 Approved December, 2008



□ EPA PM25 NA Boundary



Prepared by Fairbanks North Star Borough
 Department of Community Planning TD
 December 23, 2008



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: Breczynski, 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

*Linda Hay
House Resources Committee Aide
Representative Eric Feige
House Resources Co-Chair
State Capitol Room 126
907-465-3715 - Direct
907-321-1249 - Cell
linda.hay@akleg.gov*

**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}
--	-----------------	---

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.



AIR!
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 www.dec.state.ak.us/air

October 31, 2013

Page 1

Alaska Department of Environmental Conservation

Division of Air Quality

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



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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 PM2.5 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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