

Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

Regulatory Questions

1 10/16/2013	Why do they (EPA) not shut down all of Southern California? Please look at the climate of interior Alaska and realize there is <u>nothing</u> we can do when it is cold. As soon as it warms, the air is fine. You should remove any regulations, and accept the fact Alaska is unique. We do not want to be regulated. Stop.
-----------------	--

The State of Alaska cannot speak to EPA's specific actions in other areas of the country. However, the federal Clean Air Act requirements to bring areas into compliance with the National Ambient Air Quality Standards address all parts of the United States. DEC's mission is protecting public health and the environment and this mission drives our efforts to address this air pollution issue. Clean air is essential to every individual. Numerous scientific studies have linked fine particle pollution exposure to a variety of heart and lung problems, like aggravated asthma, chronic bronchitis, and heart attacks. While the situation in Fairbanks may appear to be particularly challenging, there are many things that can be done to help reduce air pollution in the Fairbanks North Star Borough, whether or not it is cold outside. For example, residents and property owners could do the following, as appropriate, to burn less fuel (of any type) and emit fewer pollutants:

- better insulate their home;
- install an automatic thermostat to lower the home temperature overnight / when no one is there, and warms the house before the family awakens / returns;
- change out an older woodstove with a new, more efficient woodstove or pellet stove through the FNSB woodstove change out program (<http://www.agfairbanks.com/wood-stoves/>)
- only burn clean, dry wood in wood fired heating devices and operate the device properly
- convert to natural gas or other alternative fuel if it is available and economical to do so
- carpool or use Borough Transit

If everyone takes some small steps to help reduce pollution, it can make a big difference in overall air quality. Only by working together can we clean up the air. Many of the same measures that will reduce air contaminants and promote human health will also reduce energy costs for residents.

2 10/16/2013	Just wondering, how will these proposed regulations help the <u>existing</u> problem in the FNSB area? That is, even if <u>NO</u> more solid fuel devices are installed, the existing problem is only being addressed by possibly implementing burn bans.
-----------------	--

For this winter, the Fairbanks North Star Borough and DEC are continuing programs already underway to help reduce air pollution. The Fairbanks North Star Borough, through its area wide solid fuel burning device change-out program and the enhanced solid fuel burning appliance program, assisted many property owners in replacing outdoor wood boilers over the past summer. This should help to reduce smoke impacts this winter in some areas. The agencies will also continue their public education efforts to encourage best burning practices and the use of appropriate fuels. In the event of complaints about specific solid fuel heating devices, DEC air quality staff will investigate those complaints and work with the owners and operators to ensure compliance with regulations. In addition, the state will be continuing its effort on the Interior Energy Project and other projects designed to bring affordable natural gas into the area. AHFC energy rebate and weatherization programs will continue to provide residents with opportunities to reduce home energy costs and support improved air quality. DEC will continue with the air quality public involvement process, including open houses and public hearings on the regulatory proposals and then on the State Implementation Plan as we all work toward alleviating the air pollution problem.



Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

<p>3 10/16/2013</p>	<p>What are the details of these proposals? As we have seen at the Federal level “the Devil is in the details.”</p>
<p>Based on past air quality conditions, we think it will be important to include a section in the local air quality plan that would lay out how the department would deal with air episodes and other appropriate issues. Some air episode options could include: subdividing the non-attainment area into defined areas where potential episodes could be called, identifying the temperature range where a wood heater curtailment would risk safety and property (frozen pipes), 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. This plan would then be released for public review and comment in the next phase of the air quality planning process.</p>	
<p>4 10/16/2013</p>	<p>How do you reconcile the proposals with the 2010 initiative which forbade the Borough from controlling the Home Heating within their purview. Precisely leave us alone and leave our heating alone. Education not criminalization. If the people thought this of the local gov’t, is it not logical to assume that they wouldn’t want the state (to) do so either?</p>
<p>The State is ultimately responsible for ensuring the development and transmittal to EPA of an approvable air quality plan to address the PM2.5 problem in the Fairbanks North Star Borough. DEC’s mission is protecting public health and the environment and this mission drives our efforts to address this air pollution issue. Clean air is essential to every individual. Education is a primary portion of the plan to help bring the FNSB non-attainment area into compliance with the EPA standard for PM2.5, along with the FNSB’s woodstove change out program, expanded availability of natural gas, additional plug-ins, expanded transit, and these proposed regulations, among other things. The draft state regulations would limit the sale (in the FNSB non-attainment area) of new woodstoves, pellet stoves, and outdoor hydronic heaters to those with emissions of 2.5 grams/hour or less.</p> <p>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 <u>does not</u> 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.</p> <p>In addressing any violations of state air quality regulations, the Department of Environmental Conservation Division of Air Quality will use the compliance and enforcement tools for which it is allowed under state statute. The Division has not been given the authority in statute by the legislature to issue administrative penalties for violations of Alaska environmental laws. This means the Division must use tools like written notices of violation, compliance agreements, or in rare cases civil court actions. In most cases, the department finds compliance can be achieved through assisting businesses and individuals in understanding the regulatory requirements and how they can comply.</p>	



Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

5 10/16/2013	Why are inversions not exempted from these requirements as are wildfires?
<p>The federal “exceptional events” rule governs which air monitoring data can be waived in determining compliance with the National Ambient Air Quality Standards. In general terms, the federal rules allow exemptions for violations of the standards that are clearly caused by events that are singular/unusual or not controllable. This prevents extensive planning and mitigation from being required for one time unusual events or events that are beyond our control. Even emissions from naturally occurring wildfires are not automatically exempted from the EPA air quality requirements; they may be ‘waived’ by the EPA, only if all the EPA criteria established in the exceptional event rule is met. Following is a link to the latest DEC Air Quality Exceptional Events Request to EPA for 2010: http://dec.alaska.gov/air/am/am_projects.htm#fbks-2010-eer.</p> <p>One of the main differences between wildfire events and wintertime pollution episodes during inversions is that it is human-caused pollution sources that result in violations of the standards. These human sources of pollution can be controlled and mitigated in a variety of ways to reduce air pollution. Many areas of the country experience air pollution episodes as a result of winter inversion conditions and they all, like Fairbanks, are required to lower their emissions to reduce air pollution to meet the air quality health standards. Over the past decades, the FNSB has expressed its desire for the federal requirements to be revised to have extreme inversions included as approvable waived events, but the Clean Air Act has never been amended to do so.</p>	

6 10/16/2013	Is the federal, state, or borough government going to provide shelters for people who can no longer afford to heat their homes?
	How are low income families / individuals who rely on wood stoves to heat their homes on high inversion days when they can't afford to fill the heating oil tank?
<p>The State recognizes that residents of Fairbanks North Star Borough face high energy costs and the need to keep homes and businesses warm in extreme cold, so it is critical that the Borough and state develop a plan that works for the specific air quality challenges of the area. The State is seeking to minimize the costs and impacts to residents, balancing the critical need to economically heat homes with the public health need and federal requirements to reduce air pollution.</p> <p>The proposed revisions to 18 AAC 50.075(b) states, "the department may prohibit operation of wood-fired heating devices..." This is meant to provide flexibility to allow residents who have only wood heat or need wood heat to keep the house warm in severe cold weather to continue to heat with wood during a declared air quality episode. The current regulation, without the proposed change, would curtail all wood-burning when an air episode is declared. The Department thinks this is too restrictive given that there are many homes in the state that are heated solely with wood and in extreme cold, supplemental wood heating is needed for some homes.</p> <p>The State has provided funding for a number of capital energy projects to help address the high costs of energy in the Interior of Alaska and to assist the Fairbanks North Star Borough in changing out wood and coal-fired home heating devices. The State is also aggressively working on projects to expand the availability of natural gas in the non-attainment area, including the Interior Energy Project (LNG trucking) and gas pipeline projects.</p>	



Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

Regulation Questions

1 10/16/2013	I attended an air quality meeting last year where a speaker confessed that there are areas of the Borough (e.g. North Pole) where the PM2.5 levels are twice as high as the levels at the state office building in Fairbanks. Aren't the proposed regulations based upon the Fairbanks data only?
-----------------	--

No, the proposed regulations are not based on Fairbanks only data. It is true that at times the PM2.5 levels in the North Pole area are much higher than the levels in downtown Fairbanks due to localized burning / inversions. However, the proposed regulations were developed to help the entire FNSB non-attainment area come into compliance. The higher levels recorded in the North Pole area remain a concern. The FNSB has been focusing its enhanced change out program in that hot spot area to assist in reducing localized smoke more quickly and gaining improved air quality and health benefits for local residents.

2 10/16/2013	Proposed Regulation 18AAC 50.245(a), (b), and (c) ends with the phrase: "and to take immediate action." Define "immediate action".
-----------------	---

The phrase quoted is part of a summary of the proposed regulations. The actual regulation language does not use this term. The specific action taken in response to an air quality episode would depend upon the situation being addressed. Please review the regulation language posted at:
<http://dec.alaska.gov/air/anpms/comm/docs/proposedRegs.pdf>.

Health Questions

1 10/16/2013	Why in the world is this particulate so dangerous? Where is the data?
-----------------	--

The PM2.5 particulate is a size of matter that is less than or equal to 2.5 microns, or approximately one-tenth the width of a human hair. These tiny particles can be inhaled deep into one's lung, and may not be expelled. Many studies have been done showing the damage that may occur to one's health from exposure to particulate matter. This following EPA and state web pages have health information about particulate matter:
<http://www.epa.gov/air/particlepollution/>
http://dec.alaska.gov/air/anpms/pm/pm_health.htm
<http://www.epi.hss.state.ak.us/eh/default.stm>

Research Questions

1 10/16/2013	Reading the justification document, it appears most of the data referred to are from 2008. Certainly, things have worsened dramatically since 2008.
-----------------	--

Yes, wintertime air quality appears to have worsened since 2008. The justification document was prepared using available data, and in some cases, the most recent data available was from 2008. But, other data used came from 2009, 2011, 2012, and 2013. It was not possible to gather all the required data for this process in just one year.



Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

Enforcement Questions

1 10/16/2013	If wood burning is stopped for an alert and we still exceed levels, will the Borough require me to stop burning oil during the alert?
-----------------	--

The State and Borough recognize the fundamental need for residents to heat their homes and any actions taken in response to an air quality episode would need to ensure that basic home heating needs can be met. Further, the local home heating initiative passed most recently by FNSB voters in October 2012 limited the 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, including heating oil.

2 10/16/2013	How can you enforce this? The borough doesn't enforce any of the current regulations.
-----------------	--

The Department of Environmental Conservation Division of Air Quality will use the compliance and enforcement tools for which it is allowed under state statute. The Division has not been given the authority in statute by the legislature to issue administrative penalties for violations of Alaska environmental laws. This means the Division must use tools like written notices of violation, compliance agreements, or in rare cases civil court actions. In most cases, the department finds compliance can be achieved through assisting businesses and individuals in understanding the regulatory requirements and how they can comply.

Monitoring Questions

1 10/2/2013	Who pays for the monitoring and how can you do it with hourly changes in temperature?
----------------	--

A mixture of funding pays for the air quality monitoring in the FNSB. Grant money from EPA is passed through the State to the FNSB for some air quality monitoring costs. The FNSB also funds portions of the air monitoring performed by its employees. DEC Air Quality personnel time and equipment is utilized to oversee and assist with the FNSB's monitoring effort. A number of special monitoring studies have also been funded by the federal Congestion Mitigation & Air Quality Program through the Department of Transportation.

Most of the monitors are set up to run continuously. Data logging equipment logs the hourly data summaries that include PM2.5 levels, temperature, wind direction, wind speed, barometric pressure, and other data. The data from the analyzers is available to the FNSB and DEC to help prepare air quality advisories. The same data is available to the public from the FNSB's air quality page under "Near Real Time Air Quality Map": <http://co.fairbanks.ak.us/airquality/>

Fairbanks North Star Borough Questions

1 10/16/2013	Will the Borough require me to prove my oil fired boiler is tuned up each year?
-----------------	--

Proof of oil fired boiler tune-ups is not currently contained within the proposed state regulations or within the programs being considered for the draft State Implementation Plan for PM2.5. However, education and/or other incentive programs for servicing oil furnaces may occur in the future to help residents understand that a properly tuned oil furnace will allow them to save money by using less oil, thereby emitting less air pollution. Further, the local home heating initiative passed most recently by FNSB voters in October 2012 limited the 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, including fuel oil boilers.



Responses to October 16, 2013 Open House Written Questions

Version 1 - November 29, 2013

2 10/16/2013	Why isn't the Borough putting more effort into the gas line?
<p>It is our understanding that the Fairbanks North Star Borough has put a large effort into making affordable natural gas a priority for the Fairbanks area and has sponsored studies related to the feasibility and economics of natural gas projects. The State is also aggressively working on projects to expand the availability of natural gas in the non-attainment area, including the Interior Energy Project (LNG trucking) and gas pipeline projects. For further information please contact the Borough.</p>	

EPA (U. S. Environmental Protection Agency) Questions

1 10/16/2013	Does any one of the EPA members live in Interior?
<p>DEC is not aware of any EPA employees that live in Interior Alaska, although the EPA does have staff that work in their Alaska Operations Offices living in the Anchorage area and Juneau.</p>	

2 10/16/2013	Why is EPA regulating our wood stoves? They are not qualified.
<p>EPA is qualified to regulate wood stoves and established the original certification standards for new wood heaters in 1988. Since that time EPA has implemented its certification program using independent laboratories to test new wood heater devices. Not all wood heaters are required to be certified under the 1988 regulations. EPA is currently in the process of developing revisions to the residential wood heater new source performance standards under Section 111 of the Clean Air Act. In addition to tightening the emission limits on currently regulated wood heaters to reflect improvements in best demonstrated technology, EPA anticipates new regulations for other residential devices that use solid biomass as fuel. For example, EPA anticipates new regulations for outdoor and indoor hydronic heaters and forced air furnaces. EPA anticipates proposing the revisions and new regulations in the near future.</p>	

Other Question

1 10/16/2013	How much does your heating bill run you?
<p>Heating bills vary based on the size and age of homes as well as other factors. Here are some responses from DEC staff living in Fairbanks</p> <p>A: It depends on winter temperature / cost of fuel oil / cost of pellets - house is kept at 60 F; Heating costs about \$3000 - \$4000 per year, 2200 sq ft.</p> <p>B: Oil heat plus cut, split, stack, store wood, heat primarily with dry wood. Heating costs about \$1200/yr with lots of time with wood, 1800 sq ft.</p> <p>C: Oil heat, super insulated, \$2000 - \$2500 / year, \$300 to service furnace, 1300 sq ft.</p> <p>The State has provided funding for a number of capital energy projects to help address the high costs of energy in the Interior of Alaska and to assist the Fairbanks North Star Borough in changing out wood and coal-fired home heating devices. The State is also aggressively working on projects to expand the availability of economical natural gas in the non-attainment area, including the Interior Energy Project (LNG trucking) and gas pipeline projects.</p>	

