



Serious SIP: A Path Forward for Fairbanks Air Quality

Greater Fairbanks Chamber of Commerce

Jason Brune

Commissioner, Department of Environmental Conservation

January 14, 2020

REPORT TO ALASKA YEAR 1



Alaskans Earning More & More Alaskans Working

- 3.9% GDP growth in the first half of 2019
- Lowest unemployment in Alaska's history
- 1,800 new jobs added this year
- Alaska's wages up \$355 million
- 5.6 % personal income growth

Governor Mike Dunleavy

Alaska's 12th Governor

Alaska is Open for Business

- ▶ Protection of human health and the environment and resource extraction are **NOT** mutually exclusive
- ▶ Resource extraction is better done here, where we have stronger environmental protections than other places in the world **#TGDL**
- ▶ Predictable, science-based, timely permitting process
- ▶ Strong partnerships with local and tribal governments, Alaska Native Corporations, businesses, and other organizations



DEC at a glance

AIR QUALITY

- Air Compliance
- Air Non-point & Mobile Sources
- Air Permits
- Monitoring & Quality Assurance

SPILL PREVENTION & RESPONSE



- Contaminated Sites
- Prevention, Preparedness & Response
- Response Fund Administration

WATER QUALITY



- Village Safe Water
- State Revolving Fund
- Technical Assistance & Financing
- Compliance
- Cruise Ships
- Wastewater Discharge Authorization
- Water Quality Standards, Assessment and Restoration

ENVIRONMENTAL HEALTH



- Drinking Water
- Food Safety & Sanitation
- Laboratory Services
- Pesticides
- Solid Waste
- State Veterinarian

DEC Leadership Team



► Over 125 years of state service!



DEC's Values



- ▶ We strive to provide excellent Customer Service both inside and outside of the organization by being professional, responsive, reliable, and respectful.
- ▶ We are Accountable for our actions and stand proudly behind our work, as individuals and as an organization.
- ▶ We perform to the highest moral and ethical standards, and produce transparent and consistent regulatory actions to show our Integrity.
- ▶ We support and encourage Collaboration across programs and partners to meet challenges and further our collective mission.
- ▶ We make Objective decisions, based on science and facts.



Serious SIP: A Path Forward

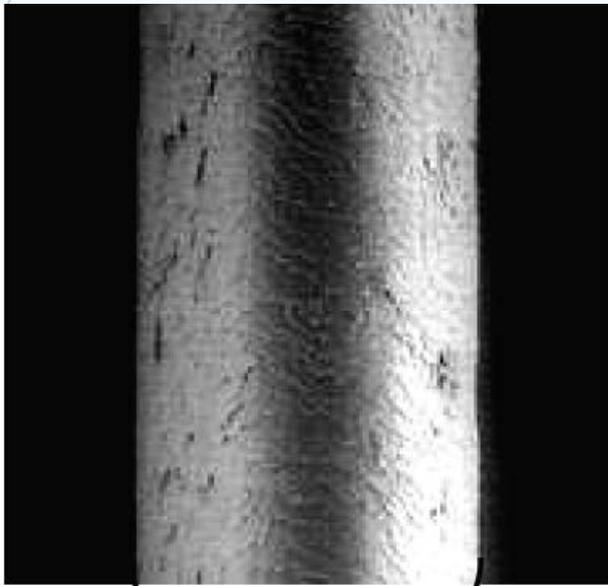
- ▶ Why Are We Here?
- ▶ Status of the SIP/Overview of Process
- ▶ Changes made due to Public Comment
- ▶ Summary of Control Measures, effective dates
- ▶ 5% Amendment Update
- ▶ Current Air Quality Efforts

Either DEC or the EPA?

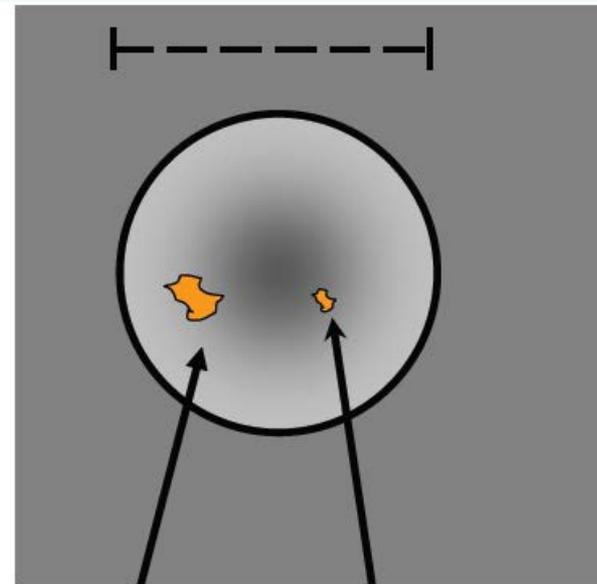


Particulate Matter

A complex mixture of extremely small particles and liquid droplets.



Human Hair (70 μm diameter)

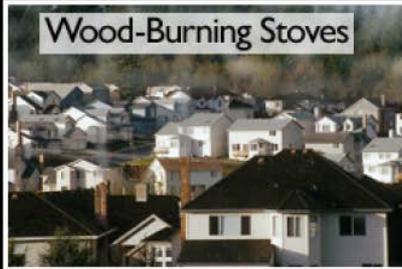


PM_{10}
(10 μm)

$\text{PM}_{2.5}$
(2.5 μm)

Source: M. Lipsett, California Office of Environmental Health Hazard Assessment

Particulate Matter



**Fine Particles Can Be
Emitted Directly or Formed
in the Air from Gases**





Public Health Risks

Particles are linked to:

- ▶ Premature death from heart and lung disease
- ▶ Aggravation of heart and lung diseases
 - ▶ Hospital admissions
 - ▶ Doctor and ER visits
 - ▶ Medication use
 - ▶ School and work absences
- ▶ And possibly to
 - ▶ Lung cancer deaths
 - ▶ Infant mortality
 - ▶ Developmental problems, such as low birth weight, in children
- ▶ Some groups are more at risk:
 - ▶ People with heart or lung disease
 - ▶ Older adults
 - ▶ Children



Serious SIP Status

- ▶ 2015
 - ▶ Serious SIP development started
- ▶ 2018
 - ▶ Released preliminary Draft SIP documents
 - ▶ Local Stakeholder Group process followed
 - ▶ Recommendations received from the Stakeholder Group
- ▶ 2019
 - ▶ DEC released draft regulations/Serious SIP for comment (May)
 - ▶ Public comment period (May-July)
 - ▶ Review of public comments and finalized Serious SIP (July-Nov)
 - ▶ DEC adopted regulations/Serious SIP and initiated final legal review
 - ▶ Serious SIP formally submitted to EPA (December 13)
- ▶ 2020
 - ▶ EPA delivered completeness finding (January 9)
 - ▶ EPA has one year to approve/disapprove



Summary of Public Comment

- ▶ The Public Comment Period ended on July 26, 2019
 - ▶ During the comment period:
 - ▶ DEC attended over 25 separate meetings to discuss the plan and answer questions.
 - ▶ DEC received and posted answers to 82 questions
 - ▶ Many commenters had multiple comments on a wide range of topics.
 - ▶ 117 individuals commented via electronic comment form, email, in writing, or through oral testimony.
- ▶ Public comments and responses are posted on the DEC Air Quality Division website at: <http://dec.alaska.gov/air/anpms/communities/fbks-pm2-5-proposed-regs-2019/>

Changes Made as a Result of Public Comment

Proposed	Adopted
Only Diesel #1 to be sold starting July 1, 2020	Only Diesel #1 to be sold starting September 1, 2022
Commercial Wood sellers – Dry Wood Only October 1, 2021	Commercial Wood sellers – Dry Wood Only October 1, 2021 Exception: 8ft rounds may be sold if requirements are met
Catalyst Woodstoves and Noncatalyst Woodstoves treated differently	Woodstoves and Pellet stoves treated equally
Additional requirement for noncatalyst woodstove for certification testing	Alternative option provided, delayed start until September 1, 2020, applies equally to all woodstoves and pellet stoves.
NOASH and Stage 1 Waivers limited to just wood stoves with expanded requirements	NOASH and Stage 1 Waiver eligibility expanded to more device types – expanded requirements remain
Coffee Roasters required to install a pollution control device unless information provided	Threshold added to exempt small Coffee Roasters and make it easier to determine if a feasibility demonstration or control device is needed.
BACT sources, 0.2 sulfur limit on coal	BACT sources, 0.25 sulfur limit on coal

Summary of Control Measures and Effective Dates

Control Measure	Effective Date
Diesel #1 Requirement	September 1, 2022
Dry Wood Sales Requirement	October 1, 2021
DEC listed Device Requirement	September 1, 2020
BACT: Multiple Permit Applications Due	June 9, 2020/ June 9, 2022
BACT: Permits Issued	June 9, 2021
BACT: Implementation Due Dates	October 1, 2023
All other requirements, including: reduced air alert thresholds new wood/coal heater standards uncertified device replacement by 2024 charbroiler, incinerator, used oil info requests	January 8, 2020



Here we go again: 5% SIP Amendment

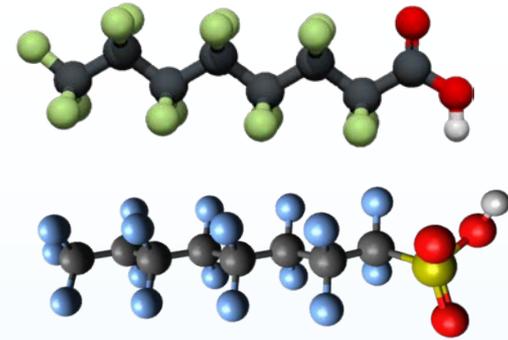
- ▶ Next step in planning process under Clean Air Act and EPA regulation is a “5% Plan”
 - ▶ Plan must show 5% emission reductions per year
 - ▶ Regulations in Serious Plan will get credited in the 5% Plan
 - ▶ Most Stringent Measures (MSM) are not required
 - ▶ New modeling Design Value and base year - will use lower monitored values
 - ▶ Will likely show attainment earlier than 2029
- ▶ Efforts have already begun on the development of 5% Plan.
- ▶ Targeting release of 5% Plan for public comment in May 2020.
- ▶ 5% Plan submittal to EPA around December 2020



Current Efforts

- ▶ ESP
 - ▶ Kudos to GVEA!
 - ▶ DEC is collaborating with FNSB's ESP testing effort. DEC will provide some limited funding for a few tests on catalytic and noncatalytic wood stoves to hopefully assist in providing additional information to FNSB and the citizen's project and possibly the 5% Plan.
- ▶ Targeted Airshed Grant
 - ▶ Applying for \$5 million in 2020
- ▶ Compliance Activities
 - ▶ DEC tries to encourage compliant behavior through assistance and communication before seeking any eventual penalty.
 - ▶ DEC is conducting routine observation on compliance with curtailment restrictions during alerts called in the FNSB.
 - ▶ Once a non-compliant observation is made, DEC typically follows a three-step process of an Advisory Letter, Compliance Letter, and finally a formal Notice of Violation.
 - ▶ DEC is issuing letters to address observations of non-compliance
 - ▶ Business to business, neighbor to neighbor is preferable to Big Brother

PFAS Update



- ▶ DEC is inline with EPA and working with responsible parties to address PFAS concerns
 - ▶ Lifetime Health Advisory of 70 ppt for PFOS and PFOA
 - ▶ Testing for 18 PFAS using EPA method 537.1
 - ▶ All data being placed on DEC website
 - ▶ <http://dec.alaska.gov/spar/csp/pfas/sample-results/>



PFAS Update

- ▶ DEC will continue protecting human health by requiring PFAS sampling in drinking water where a potential risk has been identified
- ▶ Highest priority State Airport sites have been sampled
- ▶ Airports with less potential for PFAS to impact drinking water will be evaluated and sampled by DOT in the future
- ▶ DEC is providing input to EPA on State priorities as they execute the EPA PFAS Action Plan



PFAS Update: Soil Treatment

- ▶ DEC issued first air permit in nation for PFAS incineration at Moose Creek (OIT)
 - ▶ Preliminary results show 99.99% of PFAS chemicals destroyed in soil and minute amounts into air
 - ▶ Additional tests have been done in conjunction with EPA's Office of Research and Development. Results will be made public as soon as possible.
- ▶ ***Local solutions for local problems!***

Current Issues: Contingency Plans (C-Plans)

← → ↻ Not secure | alaskadec.commentinput.com/?id=fdLgJY2gM



Alaska Department of
ENVIRONMENTAL CONSERVATION

Public Comment Form

1 Comment

2 Review

3 Your Copy

Commenting open: **October 15, 2019 12:00AM AKT - January 15, 2020 11:59PM AKT.**

Oil Discharge Prevention and Contingency Plan Public Scoping

The Alaska Department of Environmental Conservation (department) is seeking input from the public and regulated operators on the oil discharge prevention and contingency plan regulations under 18 AAC 75 Article 4 (<http://www.legis.state.ak.us/basis/aac.asp#18.75.400>). The department is also accepting comments on our statutory authorities relevant to contingency planning under AS 46.04 (<http://www.akleg.gov/basis/statutes.asp#46.04>). The goal of this scoping project is to gather more information.

No specific regulation revisions are proposed at this time, and there are no draft regulations to review. Any future proposed changes to regulations would be subject to a separate public comment period.

The department specifically would like to hear about whether the current regulations could be made more clear and understandable without compromising environmental protection or if any portions may be outdated or duplicative. The department is also interested in new ideas that may make contingency

Current Issues: Contingency Plans (C-Plans)

← → ↻ ⓘ Not secure | alaskadec.commentinput.com/comment/extra?id=fdLgJY2gM

 Alaska Department of
ENVIRONMENTAL CONSERVATION

Oil Discharge Prevention and Contingency Plan Public Scoping

Submitted By:
All ▾

Comment from: Robert Bridges
11/21/19 4:00 PM |  [Download as PDF](#)

Comment from: Alaska Fuel Storage & Handlers... (Leslie Pearson)
11/15/19 3:57 PM |  [Download as PDF](#)

Comment from: Leo Americus
11/12/19 12:27 AM |  [Download as PDF](#)

Comment from: James Pahl
11/10/19 3:20 PM |  [Download as PDF](#)

Thank you Fairbanks

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