From:	Patrice Lee
To:	Dec Air Comment
Cc:	Patrice Lee; Jeanne Olson; James Fox; Joan Franz; Greg; Mary Kay Teel; Michael Craft
Subject:	Comments on Amendments to the Serious SIP
Date:	Thursday, October 29, 2020 9:15:50 PM
Attachments:	Amended SIP Comments-3.pdf

Please see the following comments from
Patrice Lee-Citizens for Clean Air and Pamela Miller of Alaska Community Action on Toxics attached

CITIZENS FOR CLEAN AIR—ALASKA COMMUNITY ACTION ON TOXICS

October 27, 2020

VIA ELECTRONIC MAIL

Rebecca Smith
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Re: Draft Amendments to State Air Quality Control Plan – Fairbanks PM-2.5 Serious Area SIP and Attainment Plan.

Dear Ms. Smith,

Thank you for the opportunity to offer comments on the State of Alaska's ("the State") draft amendments to the State Air Quality Control Plan for the Fairbanks North Star Borough PM-2.5 Serious Nonattainment Area ("draft state implementation plan" or "Draft SIP"). Please accept these comments filed on behalf of Citizens for Clean Air, and Alaska Community Action on Toxics, ("Commenters" or "we"). Individuals or groups may supplement this submission with separate comments.

Areas within the Fairbanks North Star Borough ("Fairbanks" or "the Borough") have some of the worst fine particulate air pollution in the country.[1] This pollution has serious health consequences for the residents of Fairbanks.[2] In 2009, the U.S. Environmental Protection Agency ("EPA") identified Fairbanks as a "nonattainment area" for the 24-hour National Ambient Air Quality Standard (NAAQS) for PM-2.5.[3] At that time, the Borough was a "moderate" nonattainment area.[4] Because the Borough failed to attain the PM-2.5 NAAQS by December 31, 2015,[5] EPA reclassified the Borough as a "serious" nonattainment area.[6]

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[1] EPA, *$PM_{2.5}$ Design Values, 2018* at Tbl. 1b (July 18, 2019) (containing data for nonattainment areas of the 2006 24-hour PM-2.5 National Ambient Air Quality Standard ("NAAQS")).

[2] *See* EPA, *Integrated Science Assessment for Particulate Matter* at 6-1 to 7-114 (Dec. 2009); American Lung Association, *Particle Pollution* (citing EPA, *Integrated Science Assessment for Particulate Matter*); EPA, *Health and Environmental Effects of Particulate Matter (PM)*.

[3] 74 Fed. Reg. 58,688, 58,696, 58,702 (Nov. 13, 2009).

[4] 79 Fed. Reg. 31,566, 31,568 (June 2, 2014) ("[T]he EPA in this notice is identifying the classification of all [PM-2.5] areas currently designated nonattainment for the 1997 and 2006 NAAQS as 'Moderate.'").

[5] *Id.*at 31,570.

[6] 82 Fed. Reg. 21,711, 21,712 (May 10, 2017).

On May 10, 2019,[7] the State released its draft state implementation plan for public comment. The Draft SIP, which would replace the current moderate area SIP in place for the Borough, seeks to meet the stricter requirements imposed by the Clean Air Act following the Borough's reclassification as a "serious" nonattainment area.[8] While we appreciate that the state has at last prepared a serious area state implementation plan, the draft SIP fails in numerous respects to comply with the requirements of the Clean Air Act, and fails to ensure meaningful progress towards cleaning up the air in Fairbanks. The following comments discuss several key deficiencies in the draft SIP that must be remedied.

I. PROPOSED AND ADDITIONAL MEASURES ARE NECESSARY TO PROTECT PUBLIC HEALTH.

As the starting point for these comments, we want to emphasize that improved regulations to address wood smoke and other sources of PM-2.5 pollution are necessary to protect the health and welfare of Fairbanks residents, especially children in the community. More burning with lack of enforcement is not a path to cleaner air.

Inhalable airborne particles, the main ingredient of smoke, haze, and airborne dust, are known to present serious air quality problems in many areas of the United States, including Fairbanks. As EPA has explained, the size of particles is directly linked to their potential for causing adverse health problems; PM-2.5 pollution, consisting of the finest particles (2.5 micrometers in diameter and smaller), poses the greatest danger.[9] Such particles can penetrate deeply into a person's lungs and may even enter a person's bloodstream.[10]

"An extensive body of scientific evidence" including "thousands of studies," shows that PM-2.5 pollution "is causally linked" to a wide range of serious health impacts, including asthma attacks, hospitalization and emergency room visits for cardiopulmonary diseases, chronic respiratory disease, reduction in lung function, cancer, and premature death.[11] Wood smoke in particular "contains organic pollutants associated with the incomplete combustion of the wood," including "benzene, formaldehyde, dioxin, and polycyclic aromatic hydrocarbons, all of

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[7] This draft was released nearly 18 months after the state's December 31, 2017, deadline for submitting its SIP to EPA. 40 C.F.R. § 51.1003(b)(2)(ii) (providing that serious area SIP is due "within 18 months from the effective date of reclassification, or 2 years before the attainment date, *whichever is earlier*" (emphasis added)); 82 Fed. Reg. at 21,712.

[8] 82 Fed. Reg. at 21,712.

[9] *See* EPA, *Health and Environmental Effects of Particulate Matter (PM)*.

[10] *Id.*

[11] EPA, The National Ambient Air Quality Standards for Particle Pollution: Particle Pollution and Health at 1 (undated) (Particle Pollution and Health); 72 Fed. Reg. 54,112, 54,127-28 (Sept. 21, 2007); *See* EPA, *Integrated Science Assessment for Particulate Matter* at 6-1 to 7-114; EPA, *Health and Environmental Effects of Particulate Matter (PM)*; American Lung Association, *Particle Pollution* (citing EPA, *Integrated Science Assessment for Particulate Matter*).

which can cause cancer."[12] Further, metals in PM-2.5 pollution can bioaccumulate and cause a variety of health problems, including harm to a person's kidneys and central nervous system.[13]

Among the thousands of studies on the health consequences of PM-2.5 pollution is a study conducted by the Alaska Department of Health and Social Services that analyzed the association between air quality and hospital visits in Fairbanks for the years 2003-2008.[14] That study concluded:

> [D]ata indicate that increased concentrations of ambient $PM_{2.5}$ levels in FNSB were associated with increased risk of hospitalizations due to cerebrovascular disease in all persons and respiratory tract infections in persons aged <65 years during the study period. . . .
>
> These results are consistent with other studies conducted in the United States using similar methods that show associations between short-term PM exposure and hospitalization for cardiovascular and respiratory events.[15]

Though even healthy adults may experience temporary symptoms from exposure to elevated levels of PM-2.5, "[p]eople most at risk from particle pollution include people with diseases that affect the heart or lungs (including asthma), older adults, children, and people of lower socioeconomic status. . . . [P]regnant women, newborns, and people with certain health conditions, such as obesity or diabetes, also may be at increased risk of PM-related health effects."[16] A study undertaken by the University of California underscored the danger of PM-2.5 pollution to children, concluding that episodic early life exposure in monkeys can result in immune and lung function decrements that persist with maturity.[17]

Fairbanks was designated by EPA as a nonattainment area for the 24-hour $PM_{2.5}$ NAAQS on November 13, 2009.[18] The Borough's attainment date for the 24-hour PM-2.5 NAAQS was thus "no later than the end of the sixth calendar year after the area's designation as

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[12] Northeast States for Coordinated Air Use Management (NESCAUM), Outdoor Wood Boiler Fact Sheet at 1 (undated).
[13] 68 Fed. Reg. 26,690, 26,693-94 (May 16, 2003).
[14] Alaska Department of Health and Human Services, State of Alaska Epidemiology Bulletin No. 26, Association between Air Quality and Hospital Visits – Fairbanks, 2003-2008 (Aug. 30, 2010).
[15] *Id*.
[16] Particle Pollution and Health at 1; *see also* C. Potera, *Toxicity beyond the Lung*, 122 Environmental Health Perspectives A29 (Jan. 2014) (stating PM-2.5 exposure has been associated with increased risk of heart disease, insulin resistance, and diabetes).
[17] *See generally* L. A. Miller, Ph.D., *Persistent Immune Effects of Wildfire PM Exposure During Childhood Development – Final Report* (July 16, 2013).
[18] 74 Fed. Reg. at 58,696, 58,702.

nonattainment,"[19] that is, no later than December 31, 2015.[20] After the Borough failed to attain by that deadline, EPA reclassified the Borough as a "serious" nonattainment area, setting a new attainment date for the 24-hour PM-2.5 NAAQS of no later than December 31, 2019.[21] The Borough still has not attained the PM-2.5 NAAQS and the State demonstrates that it will not do so by the attainment date.[22]

Fairbanks continues to have some of the worst PM-2.5 pollution in the nation, with ambient air concentrations frequently in excess of the 24-hour NAAQS. In fact, of all previously designated nonattainment areas for 24-hour PM-2.5, measured by 2016-2018 design values, Fairbanks is one of the most polluted, with pollution levels almost twice the federal limits.[23] Ultimately, the air quality in Fairbanks remains unhealthy and is contributing every year to poor health, reduced quality of life, and shortening of the lifespans of residents. Meanwhile, the State and EPA have missed deadline after deadline for fulfilling their statutory duties to advance the Clean Air Act process that can redress the situation.

II. THE DRAFT SIP FAILS THE BASIC REQUIRMENT OF A SERIOUS AREA SIP TO PROVIDE FOR ATTAINMENT EITHER BY THE CURRENT ATTAINMENT DATE OR BY AN EXTENDED DATE NO MORE THAN 5 YEARS AFTER THAT DATE.

The additional draft amendments for which this comment period specifically applies do not include any new enforcement measures that are likely to be anymore successful than the previous failed enforcement strategies and methods. Previous methods have relied on voluntary compliance. Voluntary compliance has not happened in enough cases to support the claim that going forward, the regulations, new or existing will bring down harmful levels of PM 2.5. No new monies or funding have been outlined in the amendment to increase the likelihood of increased capacity for enforcement. There appears to be a lack of will to enforce.

Using a 20% opacity rule to begin a reduction in burning has lead to confusion. There is confusion by most people about how to determine 20% opacity because they don't know what that looks like and aren't trained to accurately determine 20 % opacity. Compliance will be extremely difficult, even though the concept of warning burners to cut back before meeting the benchmark of 25% for a stage one alert makes sense.

The state has been urged repeatedly to consider selling Royalty Gas to the Interior Gas Utility (IGU) for an appropriate price that is less expensive than the current gas contract per mcf. The lower cost of royalty gas would bring down the price of gas to ratepayers and encourage more conversions in the Borough and in particular the North Pole area where levels

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[19] 42 U.S.C. § 7513(c)(1).
[20] 79 Fed. Reg. at 31,570 (stating that the areas identified as moderate under the rule "are subject to a Moderate area attainment deadline under subpart 4 of no later than December 31, 2015.").
[21] 82 Fed. Reg. at 21,712; *see also* 42 U.S.C. § 7513(c)(2).
[22] Draft SIP at III.D.7.9-4-5.
[23] EPA, *$PM_{2.5}$ Design Values, 2018* at Tbl. 1b.

of PM 2.5 are the highest and where the economy is hit hard by the COVID-19 Pandemic. The State of Alaska has the opportunity to provide royalty gas relief through the IGU should it choose to do so. As of this writing, the requests for royalty gas made during the last year have not made it to the Royalty Gas Board. Alaska has gas to spare and not providing it displays a blatant choice not to help itself come into compliance with the Clean Air Act. It fails to provide relief from the terrible health effects of chronic bad air endured by its residents.

COVID is known to travel or "hitchhike" on air pollution particles. Will residents of the North Star Borough be at increased risk for COVID -19 given the high levels of air pollution we experience? The cost of health care associated with increased risk is enormous, to begin with, certainly in the tens of millions of dollars.

All the programs, regulations, ordinances, SIPs, etc. have produced a score. Burners-100. Breathers-0. Well over 10 Million dollars in grant money and millions of dollars in ADEC labor, monitoring, testing, analyzing, regulating, and educating have resulted in this score. Consider this a fiscal note of great importance.

A fiscal analysis associated with the prolonged time, well over a decade, it has taken for the Fairbanks North Star Borough non-attainment area to even make plans has never been accurately determined. It most certainly is in the hundred's of millions for health care and including premature mortality and lost economic opportunity. The Amended SIP should not be accepted for many reasons, not the least of which is no accurate analysis of the cost to those who have been chronically harmed by breathing polluted air.

The State's obligation here is clear. Because it seeks an extension of the attainment date, it must identify, adopt, and implement control measures "that collectively shall achieve attainment as expeditiously as practicable but no later than 5 years after the applicable attainment date."[24] In this case five years after the applicable attainment date is December 31, 2024. The amended plan has no reliably enforceable plan in place to meet this deadline.

The SIP cites the requirements of section 189(d) of the Clean Air Act, which address failure to attain,[25] to support this later attainment date.[26] But section 189(d) applies only if the Borough fails to attain by the extended attainment date.[27] If despite adopting and implementing all required measures aimed at achieving attainment by December 31, 2024, the Borough fails to attain the PM-2.5 NAAQS by that date, the State will be required to revise its SIP again to adopt *additional* measures to reduce pollution by at least five percent per year—

[24] 40 C.F.R. § 51.1010(b)(4).
[25] *See* 42 U.S.C. § 7513a(d); 40 C.F.R. §§ 51.1003(b)(1)(iv), 51.1005(b)(2)(iii), and 51.1011(b)(1).
[26] Draft SIP at III.D.7.9-5.
[27] 42 U.S.C. § 7513a(d).

"including all measures that can be feasibly implemented in the area."[28] Section 189(d) is irrelevant at this stage.

The state cannot avoid its obligation to prepare a serious area SIP satisfying all requirements set out in 40 C.F.R. § 51.1005(b), including adopting and implementing all most stringent measures that can feasibly be implemented and providing for attainment by no later than December 2024.

III. THE DRAFT IMPROPERLY EXCLUDES POTENTIAL MOST STRINGENT CONTROL MEASURES

The SIP as amended fails to provide for the implementation of "Most Stringent Measures". Just because a measure is not economic doesn't mean it is infeasible.

When a state applies for an attainment date extension, it must submit a plan that "includes the most stringent measures that are included in the implementation plan of any State or are achieved in practice in any State, and can feasibly be implemented in the area."[29] To do this, the state must (1) "identify all sources of direct $PM_{2.5}$ emissions and sources of emissions of $PM_{2.5}$ precursors in the nonattainment area"; (2) "identify all potential control measures to reduce emissions from all sources of direct $PM_{2.5}$ emissions and sources of emissions of $PM_{2.5}$ plan precursors" from those identified sources; and (3) "identify the most stringent measures for reducing direct $PM_{2.5}$ and $PM_{2.5}$ plan precursors adopted into any SIP or used in practice to control emissions in any state."[30] A most stringent measure (MSM) is "the maximum degree of emission reduction that has been required or achieved from a source or source category in other SIPs or in practice in other states and can be feasibly implemented in the area."[31] A SIP may reject an MSM only if the measure is technologically or economically infeasible.[32]

The Draft SIP fails to analyze and include all MSMs. Indeed, it only includes one MSM.[33] This is not because the SIP identified but rejected as infeasible all other MSMs. Instead, the Draft SIP identifies ten other control measures as potential MSMs, but without explanation defers consideration of these measures to an unidentified future SIP.[34] This is plainly contrary

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[28] 42 U.S.C. §§ 7509(d)(2), 7513a(d).
[29] 42 U.S.C. § 7513(e); 40 C.F.R. § 51.1010(b).
[30] 40 C.F.R. § 51.1010(b).
[31] *Vigil v. Leavitt*, 381 F.3d 826, 839 (9th Cir. 2004)) (quoting 66 Fed.Reg. 50,252, 50,282 (Oct. 2, 2001)).
[32] 40 C.F.R. § 51.1010(b)(3).
[33] Draft SIP at III.D.7.1-13, 7.7-28
[34] *Id*. at III.D.7.7-11-12. The Draft SIP repeatedly rejects control measures as Best Available Control Measures (BACM) while noting that the measures are "eligible for consideration as a MSM in a subsequent SIP." E.g. Draft SIP, App. III.D.7.07 at PDF 146, 159, 162.

to the requirements of the Clean Air Act.[35] As EPA has made clear, "the serious area SIP submission will need to have both a BACM/BACT analysis and an MSM analysis."[36]

The final SIP must analyze *all* MSMs and the State must adopt and implement all such measures that are technologically and economically feasible.

IV. THE DRAFT SIP FAILS TO INCLUDE ENFORCEABLE CONTROL MEASURES.

Section 110(a)(2) of the Clean Air Act provides that each implementation plan must "include enforceable emission limitations and other control measures, means or techniques . . . , as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter . . . ."[37] EPA has made clear that all such measures must be enforceable[38] and apply continuously.[39]

EPA has explained that to be "enforceable," EPA and citizens must have the ability to bring enforcement actions to assure compliance:

> SIP provisions that operate to preclude enforcement by the EPA or citizens for violations, whether through impermissible exemptions or other SIP provisions that function to bar effective enforcement, not only undermine the enforcement structure of the CAA in a technical sense, but undermine effective enforcement in reality. Congress provided states, the EPA, and citizens with independent statutory enforcement authority to ensure compliance with CAA requirements. By empowering states, the EPA, and citizens to make their own enforcement decisions with respect to violations, the CAA provides deterrence and helps to assure better source compliance.[40]

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[35] 42 U.S.C. § 7513(e)

[36] Draft SIP, App. III.D.7.07 at PDF 406.

[37] 42 U.S.C. § 7410(a)(2)*; see also* 82 Fed. Reg. 9,035, 9,042 (Feb. 2, 2017) (describing section 110(a)(2)(A) enforceability requirements).

[38] *See, e.g.,* 42 U.S.C. § 7502(c)(6) (a nonattainment state implementation plan "shall include enforceable emissions limitations, and such other control measures . . . as may be necessary or appropriate to provide for attainment . . . by the applicable attainment date"); 57 Fed. Reg. 13,498, 13,556 (Apr. 16, 1992) (explaining that it reads § 110(a)(2)(A)'s "language to require even [nontraditional] means of achieving reductions to be enforceable."); *id.* at 13,541 ("When the process of determining R[easonably] A[vailable] C[ontrol] M[easures] for an area is completed, the individual measures should then be converted into a legally enforceable vehicle (e.g., a regulation or permit program)").

[39] *See* 82 Fed. Reg. at 9,043 n.15.

[40] EPA, Memorandum to Docket for Rulemaking, "State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction" at 24 (Feb. 4, 2013) (EPA-HQ-OAR-2012-0322-0029).

Thus, state and local control measures that shield pollution sources from independent enforcement actions are not "enforceable" as required for plan approval under CAA Section 110(a)(2)(A).

Revised air quality regulations must be matched with appropriate mechanisms for enforcement. Enforcement mechanisms must be sufficient to deter violations, but fair and not overly burdensome to community members, and not overly burdensome on responsible government officials either.

The Draft SIP does not fulfill these requirements. In the Draft SIP, the State indicates that it "does not have statutory authority to issue administrative penalties for violations of Alaska environmental law."[41] It asserts that its enforcement options are limited to "written notices of violation, compliance agreements, nuisance abatement orders, and in rare cases, civil court actions."[42] Stated differently, outside of seeking voluntary compliance, the State claims that its only real enforcement mechanism is civil litigation, an approach that it concedes is "rare."[43]

If the State is correct that it currently lacks adequate enforcement authority, this violates the Clean Air Act.[44] However, the State's suggestion that it is barred from asserting that authority is unsupported. Alaska Statutes are silent on the Department of Environmental Conservation's ("ADEC's") capacity to enforce air-quality regulations by administrative penalties. No statute denies ADEC the power to impose administrative penalties on violators of air-quality regulations. In fact, A.S. 46.14.030 provides generally that ADEC may "adopt regulations necessary to implement the state plan." This suggests that enforcement by administrative penalties—as part of "implementation"—is within ADEC's statutory remit, belying the State's assertions in the SIP. If ADEC currently lacks a regulatory mechanism to impose administrative penalties, it may adopt regulations creating that mechanism.

The final SIP must include enforceable control measures.[45]

V. CONCLUSION

[41] Draft SIP, Sec. 7.7.5.1.6 at III.D.7.7-22.
[42] *Id.*
[43] *Id*.
[44] 42 U.S.C. § 7410(a)(2).
[45] *See e.g.*, 82 Fed. Reg. 9,043-44 (describing the change-out program and other voluntary control measures in the SIP).

For the reasons discussed, the final SIP must comply with all requirements of the Clean Air Act, including by including all measures necessary to achieve attainment by December 2024, including all most stringent measures, and ensuring that control measures are enforceable.

Sincerely,

Patrice Lee
Co-Coordinator
CITIZENS FOR CLEAN AIR

Pamela Miller
IPEN Co-Chair (www.ipen.org) and
Executive Director
ALASKA COMMUNITY ACTION ON TOXICS

Sources in Support of Citizens for Clean Air *et al.*'s Comments on Draft Amendments to State Air Quality Control Plan – Fairbanks PM-2.5 Serious Area SIP and Attainment Date Extension Request

Alaska Department of Health and Human Services, State of Alaska Epidemiology Bulletin No. 26, Association between Air Quality and Hospital Visits – Fairbanks, 2003-2008 (Aug. 30, 2010)

American Lung Association, *Particle Pollution*, http://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/particle-pollution.html (undated)

L. A. Miller, Ph.D., *Persistent Immune Effects of Wildfire PM Exposure During Childhood Development – Final Report* (July 16, 2013)

Northeast States for Coordinated Air Use Management (NESCAUM), Outdoor Wood Boiler Fact Sheet (undated)

C. Potera, Toxicity beyond the Lung, 122 Environmental Health Perspectives A29 (Jan. 2014)

U.S. Environmental Protection Agency (EPA), *Health and Environmental Effects of Particulate Matter (PM)*, https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm

EPA, *Integrated Science Assessment for Particulate Matter* (Dec. 2009) (excerpt), https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=216546

EPA, Memorandum to Docket for Rulemaking, "State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction" (Feb. 4, 2013) (EPA-HQ-OAR-2012-0322-0029)

EPA, *$PM_{2.5}$ Design Values, 2018* (July 23, 2019), https://www.epa.gov/air-trends/air-quality-design-values

EPA, The National Ambient Air Quality Standards for Particle Pollution: Particle Pollution and Health (undated)