

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R10-OAR-2015-0131: FRL -]

Air Plan Approval; AK, Fairbanks North Star Borough; 2006 PM_{2.5} Moderate Area Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving state implementation plan (SIP) revisions submitted by the State of Alaska (Alaska or the State) to address Clean Air Act (CAA or Act) requirements for the 2006 24-hour fine particulate matter (PM_{2.5}) national ambient air quality standards (NAAQS) in the Fairbanks North Star Borough Moderate PM_{2.5} nonattainment area (FNSB NAA). Alaska submitted an attainment plan for the FNSB NAA on December 31, 2014, to meet applicable requirements for an area classified as “Moderate” nonattainment, and made additional submissions and provided clarifying information to supplement the attainment plan in January 2015, March 2015, July 2015, November 2015, March 2016, November 2016, and January 2017 (hereafter, the initial submission and all supplemental and clarifying information will be collectively referred to as “the FNSB Moderate Plan”).

DATES: This action is effective on **[Insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-R10-OAR-2015-0131. All documents in the docket are listed on the <https://www.regulations.gov> web site. Although listed in the index, some information is not publicly available, e.g., CBI or other

information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form.

Publicly available docket materials are available through <https://www.regulations.gov>, or please contact the person identified in the “For Further Information Contact” section for additional availability information.

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SUPPLEMENTARY INFORMATION: Throughout this document, wherever “we”, “us” or “our” are used, it is intended to refer to the EPA.

TABLE OF CONTENTS:

- I. Background
- II. Public Comments and the EPA’s Responses
 - A. Comments on Control Measures
 - B. Comments on Enforcement
 - C. Comments on Rules
 - D. Other Comments
- III. Final Action
- IV. Incorporation by Reference
- V. Statutory and Executive Order Reviews

I. Background

On February 2, 2017, the EPA published its proposal to approve the FNSB Moderate Plan submitted by Alaska to address CAA requirements for the 2006 24-hour PM_{2.5} NAAQS in the FNSB NAA. 82 FR 9035. Specifically, we proposed to find that the FNSB Moderate Plan meets the substantive statutory and regulatory requirements for base-year and projected emissions inventories, precursor demonstrations, analysis and imposition of reasonably available control measures/technologies (RACM/RACT), reasonable further progress (RFP), quantitative milestones (QMs) and a demonstration that attainment by the December 31, 2015 attainment date

was impracticable. We also proposed to approve the 2017 motor vehicle emissions budgets, state and local rules that were included in the FNSB Moderate Plan, and exceptional event demonstrations submitted by Alaska to address unrepresentative monitoring data that occurred during certain events. On July 26, 2017, Alaska withdrew from the EPA's consideration four provisions from its SIP submissions.¹ The removal of these provisions does not affect today's final action fully approving the FNSB Moderate Plan. For a description of Alaska's submissions, and our evaluation and rationale for the proposed action, please see the February 2, 2017, proposed rule. 82 FR 9035.

II. Public Comments and the EPA's Responses

The EPA provided a 30-day period for the public to comment on our proposed action on the FNSB Moderate Plan which ended on March 3, 2017. During this comment period, we received five public comment letters. The public comments can be found in the docket for this action. Two commenters were supportive of efforts to improve air quality in general. One commenter expressed appreciation for the "strong standards implemented in 2006 that strengthened the 24-hour PM_{2.5} NAAQS." The other commenter stated that "Alaska has certainly done their research and taken seriously their drafting of the proposed plan." Three commenters opposed the EPA's proposed approval action. In general, these adverse comments questioned the approvability of Alaska's RACM/RACT analysis, Alaska's authority to enforce the requirements of the attainment plan, the stringency of the submitted regulations compared to existing state regulations, and expressed concerns about the high PM_{2.5} concentrations in the area and the

¹ See Alaska Department of Environmental Conservation letter, *Withdrawal of items from the State Implementation Plan submittal for the Fairbanks North Star Borough nonattainment area*, July 26, 2017, available in the docket for this action.

resulting impacts on public health. We summarize the adverse comments below and provide our responses.

A. Comments on Control Measures

Comment 1: Two commenters opposed the EPA's proposed approval of the FNSB Moderate Plan on the basis that it did not consider all potential measures that Alaska could have imposed to meet the RACM/RACT requirement for a Moderate area attainment plan. One commenter stated that "there are many available control measures for residential wood combustion that the State has neglected to consider" and provided as examples requirements for low-sulfur heating fuel, control measures based on housing density, programs to improve wood-burning device operation and maintenance, and training and certification programs for installers of wood stoves. The commenter then asserted that the "State was required to analyze these control measures to determine whether they are reasonable for Fairbanks." The other commenter stated that "Alaska's consideration of technologically and economically feasible controls was impermissibly narrow" and provided as examples limiting the hours of operation for wood-heating facilities, and wood gasification and carbon capture and storage that Alaska did not evaluate or impose as part of the FNSB Moderate Plan.

Response 1: The EPA disagrees with these comments because Alaska adequately evaluated appropriate measures for the FNSB NAA for purposes of the FNSB Moderate Plan. Section 107(a) of the CAA provides states with both authority and primary responsibility for developing SIPs that meet applicable statutory and regulatory requirements for attaining, maintaining, and enforcing the NAAQS. States have discretion in formulating their attainment

plans so long as they meet the applicable requirements of the Act.² Additionally, the EPA has explained that the control measure evaluation process “generally allows states to apply reasoned judgment as they identify potential control measures for sources of direct PM_{2.5} and PM_{2.5} precursors in their respective nonattainment areas.” 81 FR 58037, August 24, 2016. For the reasons provided in our proposed rule and further below, we conclude that the FNSB Moderate Plan provides for the implementation of all RACM/RACT that could reasonably be implemented in the FNSB NAA as required by CAA sections 172(c) and 189(a)(1)(C). We respond below to the specific comments pertaining to the six potential control measures highlighted by the commenters.

Response 1.a. Low-sulfur heating fuel requirement as opposed to economic incentives.

One commenter asserted that Alaska failed to evaluate, as part of the analysis for potential RACM/RACT control measures for residential wood combustion, a requirement for the use of low sulfur fuel “as opposed to merely providing incentives for its use.” The EPA reevaluated Alaska’s analysis on low sulfur residential fuel oil in light of the comment. Alaska assessed the technological and economic feasibility of switching from the current residential heating oil used in the area to a low-sulfur fuel (FNSB Moderate Plan appendix III.D.5.7-41 and 5.7-57). Specifically, Alaska determined that the incremental cost of users switching to low sulfur fuel oil was not economically feasible for purposes of the FNSB Moderate Plan.

The EPA notes that the commenter may have believed that Alaska did not adequately evaluate the use of low sulfur fuel because Alaska did not separately consider both mandatory requirements to use such fuel and incentive programs to encourage the voluntary use of such

² CAA section 110(k)(3), 42 U.S.C. 7410(k)(3) and 40 CFR 52.02(a); *see also Union Elec. Co. v. EPA*, 427 U.S. 246, 250 (1976); *Train v. Natural Res. Def. Council*, 421 U.S. 60, 79 (1975).

fuel. Upon reviewing Alaska's analysis, however, we believe that the economic feasibility analysis for this control measure applies to both a mandatory requirement, as well as to incentives to use low-sulfur fuel. We note that while the subheading in the economic incentives section refers to "incentives," the analysis is not limited to only providing incentives and more broadly analyzes the costs of low-sulfur fuel, whether implemented through a requirement or with incentives. The EPA acknowledges that the "incentives" subheading is somewhat confusing given the broader analysis that follows it, but we do not agree that Alaska failed to consider requirements to use low-sulfur fuel adequately for purposes of the FNSB Moderate Plan.

Alaska concluded that switching to low sulfur fuels would not be economically feasible; this conclusion would apply to both incentive-based and mandatory measures. We note that the FNSB NAA has been reclassified from Moderate to Serious, and Alaska will be required to prepare and submit for EPA review a Serious area attainment plan. 82 FR 21711, May 10, 2017. We anticipate that Alaska will thoroughly evaluate such control measures again, with updated economic data and in light of the longer Serious area attainment deadline, in developing the Serious area attainment plan for this area which requires analysis and implementation of Best Available Control Measures/Technologies (BACM/BACT).

Response 1.b. Control measures based on housing density. One commenter asserted that Alaska failed to consider restrictions on the use of certain residential heating devices based on population density, i.e., restricting the use of such devices in more densely populated areas. The commenter referenced San Joaquin Valley Air District Rule 4901 (SJV Rule 4901) as an example of a housing density-based control measure that Alaska did not consider. SJV Rule 4901 limits or prohibits new installations of heating devices based on the number of dwellings per acre. Although we agree that such control measures can be appropriate based on the facts and

circumstances of a given area, we disagree with the commenter's assertion that Alaska did not consider all RACM/RACT in the FNSB Moderate Plan because it did not specifically evaluate a housing density-based control measure, like the one in SJV Rule 4901, for purposes of the FNSB Moderate Plan. In its January 6, 2017 clarification document (2017 Clarification), Alaska evaluated a general prohibition on new wood-heating device installations in the FNSB NAA and determined that it was not feasible because in extreme cold temperatures alternative sources of heat that do not rely on electricity and are not at risk of damage from freezing are a critical source of heating and must be an available option to the public. *See* 2017 Clarification, pp. 2 and 5. We note that the effect of limiting new wood-heating device installations based on housing density functionally results in prohibiting their installation for some homes. The rationale provided by Alaska for the infeasibility of a general prohibition on wood-heating device installations would also apply to prohibiting wood-heating device installations based on housing density. Thus, the EPA believes that it was not necessary for Alaska also to consider a housing density criterion (e.g., number of dwellings per acre) in evaluating a potential prohibition on new wood heating-device installations because it would not change the conclusion that prohibiting new wood-heating device installations is not feasible in the FNSB NAA.

In addition, we note that for a specific category of wood-heating devices, hydronic heaters, Alaska evaluated and implemented a setback requirement that prohibits new installations that are less than 330 feet from the property line. One purpose of this requirement is to restrict these sources, which typically emit larger amounts of pollutants, to less densely populated areas. In the 2017 Clarification, Alaska describes the effect of this control measure as limiting "the installation of hydronic heaters to large lots which are unlikely to exist in more densely

populated areas.” 2017 Clarification, p. 7. The hydronic heater setback requirement is thus a density-based requirement that is tailored to address a specific type of heating device.

Response 1.c. Programs to improve wood-burning device operation and maintenance.

One commenter asserted that Alaska neglected to consider programs to improve operation and maintenance of wood-burning stoves and fireplaces as a means of reducing emissions from residential wood combustion. We disagree that Alaska did not adequately evaluate and adopt programs to improve the use of residential wood heating devices. As we discussed in our proposal, Alaska evaluated and implemented public awareness and education programs on wood storage and heating device operation and maintenance. 82 FR 9044. We refer the commenter to the Alaska Department of Environmental Conservation’s wood heating media web page (<http://dec.alaska.gov/air/anpms/pm/wshome.htm>) and the Fairbanks North Star Borough local government’s (Borough) air quality website (<http://www.aqfairbanks.com>) that contain brochures, television public service announcements, and videos about efficient wood-burning device operation and maintenance. The Borough’s website also has an air quality pledge that residents can make that includes efficient wood-heating device operation and maintenance. If there are additional means to improve the operation and maintenance of wood stoves, we anticipate that Alaska will evaluate them during the development of the Serious area plan for the FNSB NAA.

Response 1.d. Installer training and certification programs for wood stove installers. One commenter stated that the EPA should not approve the FNSB Moderate Plan because Alaska did not consider implementing a training and certification program for residential wood combustion (RWC) device installers that was described in a 1989 EPA guidance document (1989 RWC

Guidance).³ The 1989 RWC Guidance describes a state or local installer certification program that would offer a course in proper RWC device installation and design as a means of minimizing emissions from wood stoves.⁴ 1989 RWC Guidance, p. 3-11. The EPA acknowledges that the 1989 RWC Guidance document remains in effect. However, since the publication of the 1989 RWC Guidance, national installer training and certification programs, such as the National Fireplace Institute (NFI) and the Chimney Safety Institute of America (CSIA), have come into existence. The EPA has confirmed that these national certifications are available to installers in the FNSB NAA and that there are currently seven certified installers in the area. *See* “NFI CSIA FNSB Certification List” in the docket for this action. We believe that the guidance recommendation for states to consider a state or local training and certification program for wood stove installers is adequately addressed in the FNSB NAA by the existence of national certification programs.

As discussed in the 1989 RWC Guidance, the effectiveness of an installer certification program depends in part on the extent to which installers and consumers participate in the programs. 1989 RWC Guidance p. 3-12. During development of the FNSB Moderate Plan, Alaska considered and responded to public comments about installation and certification programs by explaining that it had added to its outreach materials for users of wood stoves the EPA’s recommendation for consumers to use certified installers. *See* FNSB Moderate Plan, appendix III.D.5.13-151. Additionally, although not a control measure in the FNSB Moderate Plan, we note that the EPA has awarded Alaska funding for a changeout program for the FNSB

³ *Guidance Document for Residential Wood Combustion Emission Control Measures*. EPA-450/2-89-015. September 1989. Available at <https://www.epa.gov/sites/production/files/documents/epa-450-2-89-015.pdf>.

⁴ The 1989 RWC Guidance explains that, other than the New Source Performance Standards, the measures discussed in the document are not “national measures.” 1989 RWC Guidance, p. 1-1. We therefore, interpret the installer certification program described in the 1989 RWC Guidance to be a state or local program.

NAA that will provide funds to encourage users to replace old wood and pellet appliances and fireplaces with new EPA certified appliances or with oil or natural gas appliances that will help reduce emissions. The EPA grant providing these funds requires that participants in the program have the replacement appliances installed by a certified installer, a contracted hearth retailer, or a contractor under the approval and supervision of a contracted hearth retailer. This program is funded by the EPA's Targeted Airshed Grant and was awarded to Alaska on July 18, 2017.⁵ Finally, we anticipate that Alaska will further evaluate how to regulate emissions from wood stoves for purposes of meeting the BACM/BACT requirement in the Serious SIP, and this should include consideration of additional ways to encourage correct wood stove installations.

Response 1.e. Operating limitations on wood-heating facilities. One commenter stated that Alaska failed to consider operating limitations for sources such as requirements in site plans “that wood-heating facilities operate during limited hours per year.” We interpret the commenter’s concern to refer to the type of operating plans typical for major stationary sources, in which a source might be subject to restricted hours of operation as one means of reducing emissions. Although the FNSB Moderate Plan identified wood heating as a primary source of PM_{2.5} in the area, major stationary wood-heating facilities, for which a site operating plan might be appropriate, were not identified as a source category in the emissions inventory and therefore no analysis of control measures was required. *See* 40 CFR 51.1009(a)(1). Accordingly, we do not believe it was necessary for Alaska to evaluate and impose this type of measure, given the absence of relevant sources. The EPA notes, however, that the FNSB Moderate Plan includes a more broadly applicable mandatory curtailment program that has limitations on the operation of

⁵ *See* U.S. EPA Grant Agreement 01J30601 to the Alaska Department of Environmental Conservation, August 8, 2017, available in the docket for this action.

wood-heating devices when PM_{2.5} ambient levels are forecasted to reach high values. *See* 82 FR 9043.

Response 1.f. Wood gasification and partial carbon capture and storage. One commenter suggested that Alaska's RACM/RACT analysis should have considered wood gasification and partial carbon capture and storage as an energy efficiency measure. The EPA disagrees that an analysis of these technologies is appropriate for a PM_{2.5} nonattainment area plan. These technologies are generally designed to reduce carbon dioxide emissions and are not considered viable control measures for reducing PM_{2.5}.

Comment 2: Partial implementation was not considered. One commenter stated that the EPA should not approve the FNSB Moderate Plan because Alaska failed to consider the feasibility of implementing control measures in part, even if it concluded that full implementation of the measures was infeasible. The commenter suggested that the following control measures "might be implemented in stages or by employing a more targeted approach" (i) a ban on green wood sales; (ii) a requirement that all hydronic heaters be certified or have retrofits; (iii) a requirement that uncertified stoves in rental units be replaced; (iv) a requirement that rental units have alternate sources of heat; and (v) a requirement that new constructions have alternate sources of heat.

Response 2: We disagree with the claim that the EPA must disapprove the FNSB Moderate Plan because Alaska failed to assess partial implementation of the five control measures identified by the commenter. As discussed below, Alaska either fully or partially implemented the control measures, or adequately addressed emissions in other ways that obviated the need to control the emissions through partial implementation of the control measures.

Response 2.a. Ban on green wood sales. Alaska rejected banning green wood sales (i.e., wood that has a moisture content greater than 20%) based on technological infeasibility. However, Alaska adopted other control measures that address the moisture content of wood to reduce emissions. First, wood sellers in the FNSB NAA are required to register with the State and they must disclose the moisture content of wood they sell to consumers. This will serve to assure that users of purchased wood will be on notice of the moisture content. Second, burning green wood in wood-fired heaters is prohibited in the FNSB NAA. This, in conjunction with the requirement on sellers to disclose moisture content, will serve to assure that purchasers will not burn green wood. The EPA considers the requirement to disclose the moisture content of wood for sale in conjunction with the prohibition on burning wet wood to be an adequate approach to reducing emissions from green wood for purposes of the FNSB Moderate Plan. It is unclear how the commenter's recommended partial implementation of a ban on green wood sales would accomplish additional emission reductions beyond the approaches already adopted by Alaska.

Response 2.b. Require all hydronic heaters to be certified or have retrofits. Alaska concluded that it was not feasible to require that all existing hydronic heaters in the FNSB NAA be replaced with specified certified models or to require retrofits for such heaters. However, the FNSB Moderate Plan includes a Borough code requirement that an owner of an existing uncertified hydronic heater that has had two or more violations of certain Borough code emissions provisions must remove the device, unless certain conditions are met. Additionally, Alaska required that all hydronic heaters installed after February 28, 2015 be qualified under the EPA's Phase 2 program or meet certain emission standards. We also note that owners of existing hydronic heaters are eligible to receive incentives for removal or replacement of the devices through the Borough's changeout program. Furthermore, all hydronic heaters are subject to a 20

percent opacity limit, a requirement to use dry wood, and must comply with wood heating curtailments. Also, hydronic heaters that do not meet certain emission standards must be removed upon conveyance of property. Through this suite of overlapping requirements, we believe that Alaska has adequately addressed emissions from uncertified hydronic heaters for purposes of the FNSB Moderate Plan. The EPA expects that Alaska will evaluate the need for further controls, such as expanded changeout incentives or retrofits to existing uncertified hydronic heaters, as part of the BACM/BACT analysis for the Serious area attainment plan for this area.

Response 2.c. Replace uncertified stoves in rental units. The FNSB Moderate Plan includes a requirement that uncertified wood-fired heating devices must be removed when a property is leased. The requirement became effective on June 9, 2017. Because this control measure has been fully implemented, consideration of partial implementation is unnecessary. We note that the wood heating device emission standards in the FNSB Moderate Plan do not allow the installation of uncertified devices. Therefore, once an uncertified wood stove has been removed from a rental unit, it cannot be replaced with an uncertified device.

Response 2.d. Require rental units to have alternate sources of heat. In the FNSB Moderate Plan, Alaska explained that surveys from 2011-2015 indicated that only 5.6% of households surveyed had wood as a sole source of heat. *See* 2017 Clarification, p. 12. This number included both rental and owner occupied homes, so presumably the number of rental units without alternative sources of heat would be smaller. We note, however, that the FNSB Moderate plan does not allow owners of newly constructed buildings, including rental properties, to obtain a “no other adequate source of heat” (NOASH) determination. A NOASH determination allows a person to use a solid fuel or waste oil burning appliance during a stage 2

or stage 3 curtailment. To qualify for a NOASH determination, a building owner or manager must file an application with the Borough confirming that the building has no adequate heating source other than a solid fuel or waste oil burning appliance, that economic hardships require the use of a solid fuel waste oil burning appliance, or that complying with a curtailment would result in damage to property. Prohibiting newly constructed buildings, including rental properties, from obtaining a NOASH determination functionally requires the installation of alternate sources of heat so that the building occupants can comply with wood heating curtailments. We anticipate that Alaska will revisit further controls for rental units in developing its Serious area attainment plan.

Response 2.e. Require new construction to have alternate sources of heat. As discussed above, a provision that addresses this control measure was included in the FNSB Moderate plan. The provision excludes owners of newly constructed buildings from obtaining a NOASH determination which functionally requires the installation of alternate sources of heat in new buildings so that the building occupants can comply with wood heating curtailments.

Comment 3: One commenter stated that the technological feasibility analysis in the FNSB Moderate Plan is inadequate because Alaska took the position that it was impeded from implementing certain control measures due to local opposition evidenced by a citizen's referendum prohibiting regulation of home heating sources, and that when the referendum was lifted, Alaska continued to dismiss the control measures due to insufficient time to revise the Moderate area attainment plan. This commenter also stated that not enough has been done to render the 2014 submission compliant with the CAA.

Response 3: We acknowledge that Alaska's initial December 2014 submission cited a citizen's referendum as a basis for not adopting many potential control measures. As we

explained in our proposal, the EPA does not view social acceptability, including the citizen's referendum prohibiting regulation of home heating sources in any manner, to be an appropriate basis for rejecting required emission control measures. *See* 82 FR 9045.

Significantly, however, the situation about which the commenter was concerned has changed because the referendum no longer applies and Alaska has evaluated additional control measures for inclusion in the FNSB Moderate Plan. Alaska provided supplemental SIP submissions, supported by clarifying information, that analyzed the control measures that it previously considered infeasible due to the citizen's referendum, including the control measures identified by the commenter. Based on this revised analysis, Alaska adopted some additional control measures, such as the mandatory solid-fuel heating device curtailment program, but continued to find some control measures infeasible for reasons unrelated to the expired referendum, such as the ban on green wood sales.

Alaska's supplemental submissions provided additional control measures and an updated and revised analysis for certain components of the FNSB Moderate Plan to ensure that the EPA could evaluate and act on the current plan. As a result, and as the commenter notes, there is some information in the original submission that is outdated and that was made extraneous by the supplemental submissions. However, the supplemental submissions clearly identify the portions of the original submission that were updated and revised and we do not believe that the extraneous material that remains in the original submission is a basis for disapproving the FNSB Moderate Plan. As explained in response to comments concerning specific potential control measures, we have concluded that Alaska's evaluation of the measures is adequate for purposes of the FNSB Moderate Plan.

Comment 4: One commenter argued that the EPA cannot approve the FNSB Moderate Plan because Alaska made errors in reasoning. The commenter provided as an example, Alaska's assessment of a ban on new installations of hydronic heaters and the assumption that such a ban could have the negative effect of prolonging the use of older devices because new installations would be prohibited. The other example the commenter provided was Alaska's assumption that the benefits would be small for a requirement that rental units in the FNSB NAA have alternative heating sources.

Response 4: We do not agree that the specific Alaska assumptions the commenter referenced are inappropriate, given the facts and circumstances in the FNSB NAA. In evaluating a potential ban on new installations of hydronic heaters, Alaska's primary explanation for why such a control was not appropriate was that "due to arctic conditions, alternative sources of heat must be an available option to the public to protect health, life, and property." 2017 Clarification, p. 2. The assumption referenced by the commenter, that implementing such a ban may discourage replacement of older and higher emitting hydronic heaters, was an additional consideration for not banning new hydronic heaters installations. We believe that it was reasonable for Alaska to take into consideration the potential impacts that a ban on new hydronic heaters might have on Alaska and the Borough's ongoing efforts to encourage replacement of older and higher emitting devices with newer, cleaner burning devices. Alaska developed the FNSB Moderate Plan through an extensive public process and adopted a suite of controls for reducing the emissions from hydronic heaters that are intended to help bring the area into attainment. The decision not to impose a ban because it might unintentionally undercut other related measures is not unreasonable. We anticipate that Alaska will further evaluate this emissions source as part of its development of the Serious area plan for the FNSB NAA.

Regarding Alaska's statement that the benefits are assumed to be small for requiring alternate sources of heat in rental units, we believe that Alaska made reasonable assumptions based on the latest information available at the time. For example, Alaska explained that surveys from 2011-2015 indicated that only 5.6% of households surveyed had wood as a sole source of heat. *See* 2017 Clarification, p. 12. This number included both rental and owner-occupied homes, so presumably the number of rental units without alternative sources of heat would be smaller. We anticipate that Alaska will revisit the analysis of rental units with updated information in developing its Serious area attainment plan.

Comment 5: One commenter argued that the wood-fuel cost assessment in the FNSB Moderate Plan is incomplete because it does not accurately reflect the full cost of burning wood as a fuel, such as the value of a homeowner's time and the cost of ash disposal, and the fact that more fuel is needed to heat a building in Fairbanks than in the rest of the country.

Response 5: We agree with the commenter that an economic feasibility analysis should include a range of costs associated with potential control measures for a given type of emissions source. Considerations of economic infeasibility are used to exclude control measures during the RACT/RACM analysis. The EPA notes, however, that Alaska did not reject any control measures based on the costs associated with use of wood as a fuel. The cost assessment referenced by the commenter provided background information on mandatory curtailment programs as a potential control measure. *See* FNSB Moderate Plan appendix III.D.5.7-16. In the initial FNSB Moderate Plan, Alaska considered the mandatory curtailment program to be technologically infeasible. *See* FNSB Moderate Plan appendix III.D.5.7-27, 32, 39. Alaska did not conduct an economic feasibility analysis on any wood heating control measure found to be technologically infeasible. As discussed in our proposal, Alaska provided a supplemental submission supported by

clarifying information that reevaluated the technological feasibility of various control measures and adopted and implemented the mandatory curtailment program that was the subject of the earlier cost analysis referenced by the commenter. *See* 82 FR 9045.

Comment 6: One commenter alleged that Alaska's RACT conclusion "is flawed, at least with respect to the control of sulfur dioxide (SO₂) at local power plants," and that Alaska "unjustifiably concluded that the current level of controls meets RACT." The commenter referred to dispersion modeling and the speciation analysis in the FNSB Moderate Plan to show that SO₂ precursor emissions from major stationary sources contribute to exceedances of the 2006 24-hour PM_{2.5} NAAQS.

Response 6: The EPA agrees that SO₂ emissions from major stationary sources contribute to the PM_{2.5} concentrations in the FNSB NAA, as does Alaska. We did not propose to approve, nor did Alaska provide, a demonstration that SO₂ emissions from stationary sources were insignificant in the formation of ambient PM_{2.5} concentrations in the FNSB NAA. Accordingly, SO₂ is a precursor that Alaska evaluated for emission controls in this area for purposes of attaining the 2006 24-hour PM_{2.5} NAAQS.

As explained in our proposed approval of the FNSB Moderate Plan with respect to this issue, Alaska conducted a technical and economic feasibility analysis of RACT-level SO₂ controls for major stationary sources in the FNSB NAA and concluded that additional controls beyond those already in place were not feasible. 82 FR 9044. The EPA has explained that a state could demonstrate that an existing source in an area should not be subject to a specific control technology especially where such technology is unreasonable in light of the area's attainment needs, or where such technology is infeasible. In such a case, a state could conclude that no

control technology is “reasonably available,” and thus RACT for the source could be the existing emission controls rather than additional controls. *See* 81 FR 58034.

Additionally, the commenter did not identify any specific deficiencies with respect to Alaska’s RACT analysis for SO₂ emissions from major stationary sources for the EPA to evaluate the claim that Alaska’s conclusion is unjustified. The EPA finds that Alaska adequately justified its conclusions that its stationary source control measures represent the adoption of reasonable control measures that meet RACM/RACT requirements for purposes of the Moderate FNSB Plan for the 2006 24-hour PM_{2.5} NAAQS. We note that the FNSB NAA has been reclassified from Moderate to Serious, and thus Alaska will be required to conduct a BACM/BACT analysis for potential control measures for the Serious area attainment plan. 82 FR 21711. Accordingly, Alaska’s conclusion that additional SO₂ emissions controls for these stationary sources were not feasible for purposes of meeting RACM/RACT requirements must be revisited in the context of the more stringent BACM/BACT analysis for the Serious area attainment plan.

Comment 7: We received two comments that expressed concern regarding the availability of natural gas as an alternative fuel in the FNSB NAA. One commenter stated that Alaska has failed to supply the area with natural gas, that the infrastructure is not in place, and that the area is years away from having natural gas. Another commenter identified language in the FNSB Moderate Plan in which Alaska discussed the possibility of a public-private partnership for bringing additional natural gas to the community that has not yet occurred. This commenter stated that “to the extent the SIP relies upon these references, it cannot be approved.”

Response 7: The commenters are correct that Alaska has been exploring the expanded use of natural gas as an alternative fuel in the FNSB NAA as a potential means of helping to reduce emissions and to attain the 2006 24-hour PM_{2.5} NAAQS, but thus far natural gas is not widely

available in the area. To provide natural gas at scale, significant investments of time and money are needed to construct the infrastructure to deliver natural gas to Fairbanks and to distribute it to consumers. Thus, in the FNSB Moderate Plan, Alaska described plans to seek to expand the availability of natural gas in the future. Because natural gas is currently not available at a meaningful scale it was not included as part of Alaska's control strategy analysis and Alaska did not take credit for emissions reductions related to natural gas in the FNSB Moderate Plan.⁶ Alaska's discussion of potential expansion of natural gas in the FNSB Moderate Plan is not a basis for disapproval of the FNSB Moderate Plan. Because of the potential emission reduction benefits, the EPA supports efforts by Alaska to expand the availability of natural gas in the FNSB NAA in the future.

Comment 8: One commenter objected to the EPA's statement in the proposal that Fairbanks was relatively new to programs for reducing emissions from wood heating and, prior to 2015, the community had not experienced mandatory curtailments on solid-fuel heating devices. The commenter claimed that this statement was used to justify limitations on the applicability of the curtailment requirements for solid fuel heating devices in the FNSB Moderate Plan.

Response 8: We disagree with the commenter's characterization of the statement in the proposal as the EPA's justification for approval of Alaska's curtailment requirements, including certain limitations on those requirements. In the sentence preceding the one cited by the commenter, we provided the reasons for our conclusion that the limitations on the applicability of the curtailment requirements are appropriate: "The EPA concludes that in the FNSB NAA,

⁶ As we discussed in our proposed rule, Alaska provided a 2019 inventory for informational purposes. See 82 FR 9037. Although the 2019 inventory included emissions reductions estimated from potential future expansion of reliance on natural gas, this informational inventory was not relied on in the SIP nor was it a required element for the FNSB Moderate plan.

where wintertime temperatures can be extreme and there is limited availability of fuel alternatives such as natural gas, the three limitations in Alaska's mandatory solid-fuel heating device curtailment program similarly invoke public welfare considerations that are appropriate in the context of a Moderate area plan." See 82 FR 9046. In short, given the facts and circumstances of this area, Alaska concluded that it was not reasonable to prohibit the use of solid fuel heating devices during periods of extreme cold weather. Our conclusion regarding the appropriateness of the limitations that Alaska included in the curtailment requirements remains unchanged. The reference to the newness of the curtailment program questioned by the commenter was merely an EPA acknowledgment that a two-stage program could help to facilitate effective implementation of the program in the community. This statement is based on the EPA's experience in other nonattainment areas where adoption and implementation of a curtailment program has required efforts to increase community awareness and comprehension of the curtailment program in order to achieve the anticipated emissions reductions.

Comment 9: One commenter objected to our proposal to approve, as SIP strengthening, the control measures that Alaska submitted as contingency measures in the FNSB Moderate Plan. The commenter explained that Alaska did not provide a justification for not implementing these control measures immediately and that they must be included in the RACM analysis and adopted immediately. In other words, the commenter asserted that Alaska could not set aside these control measures to meet the CAA section 172(c)(9) requirement for contingency measures because Alaska was required to impose these measures to meet the RACM/RACT requirement instead.

Response 9: The control measures the EPA proposed to approve as SIP-strengthening measures are: (1) a requirement that uncertified wood-fired heating devices be removed when a property is sold, leased, or conveyed, and (2) a mandatory wood seller registration and wood

moisture disclosure program. *See* 82 FR 9052. Specifically, we are approving 18 AAC 50.076(d)-(i) and 18 AAC 50.077(a)(2)(B). These provisions will become federally enforceable upon the effective date of this action. However, we disagree with the commenter's assertion that Alaska did not evaluate these control measures as potential RACM/RACT measures. Alaska evaluated both of these control measures and they have been implemented. *See* 2017 Clarification pp. 3-5. The requirement that uncertified wood-fired heating devices be removed when a property is sold, leased, or conveyed became effective on June 9, 2017 and the mandatory wood seller registration and wood moisture disclosure program became effective on August 15, 2017.⁷

B. Comments on Enforcement

Comment 10: One commenter opposed the EPA's proposed approval of the FNSB Moderate Plan because of concerns that the control measures in the plan are not enforceable. One commenter took issue with Alaska's enforcement authority claiming that "outside of seeking voluntary compliance, the State claims that its only real enforcement mechanism is civil litigation." Another commenter stated that "Alaska has made no good faith effort to secure 'enforcement authority' from the Alaska legislature." This commenter also contends that "[t]he state legislature granted \$350 Million dollars to privately owned refineries and a shuttered Agrium Fertilizer plant, yet claims they lack resources to implement regulations and enforce them."

Response 10: We agree that states must have authority to enforce the requirements of their SIPs to meet various CAA requirements, including CAA section 110(a)(1), 110(a)(2)(C),

⁷ *See* the following Alaska Department of Environmental Conservation documents in the docket for this action: (1) *Commercial Wood Seller Registration Requirement Fairbanks North Star Borough PM2.5 Nonattainment Area Questions and Answers* and (2) *Wood-Fired Heating Device Requirement – Remove or Replace Non Compliant Devices Upon Property Sale, Lease or Conveyance – Effective Date: June 9, 2017.*

and 110(a)(2)(E). We disagree with the commenter, however, that Alaska lacks the required enforcement authority. States are required to have a SIP that provides for the implementation, maintenance, and enforcement of the NAAQS. Whenever the EPA promulgates a new or revised NAAQS, the CAA requires states to make a SIP submission, commonly known as an “infrastructure SIP” to establish that they meet a host of requirements including those pertaining to general enforcement authority.

In November 2014, the EPA approved Alaska’s infrastructure SIP for the 2006 24-hour PM_{2.5} NAAQS. 79 FR 66651, November 10, 2014. The EPA found that the infrastructure SIP addressed the basic program elements in accordance with CAA section 110(a)(1) and (2), including, but not limited to regulatory structure, monitoring, modeling, legal authority, and adequate resources necessary to implement, maintain, and enforce the standards. Relevant to this comment, the EPA found that Alaska’s SIP met the CAA section 110(a)(2)(C) requirement to include a program to provide for the enforcement of emission limits and other control measures in the SIP and also met the CAA section 110(a)(2)(E) requirement that a state provide necessary assurances that it has adequate authority under state law to carry out the SIP. Alaska’s infrastructure SIP submission for the 2006 24-hour PM_{2.5} NAAQS referred to Alaska Statute (AS) 46.14.030 *State Air Quality Control Plan* which provides the Alaska Department of Environmental Conservation (ADEC) statutory authority to act for the State and adopt regulations necessary to implement the *State Air Quality Control Plan*. It also references 18 AAC 50.030 *State Air Quality Control Plan* which provides regulatory authority to implement and enforce the SIP. See 79 FR 66651, November 10, 2014 and 79 FR 41502, July 16, 2014. Furthermore, ADEC has statutory authority to enforce violations of air quality regulations by seeking the assessment of civil penalties (AS 46.030.760) and criminal penalties (AS

46.030.790). The EPA's analysis of the adequacy of enforcement authority is premised on whether a state has legal authority to enforce the SIP. The commenter's concern that ADEC may opt to seek voluntary compliance does not negate the fact that it has the necessary enforcement authority to require compliance with the SIP. A state's election to seek voluntary compliance rather than proceeding to judicial enforcement is an exercise of enforcement discretion. The EPA notes that a state's exercise of enforcement discretion does not affect the ability of the EPA to pursue enforcement under CAA section 113 or others pursuant to the citizen's suit provision in CAA section 304.

We also disagree with the comment suggesting that ADEC must justify the absence of administrative enforcement authorities. The commenter argues that AS 46.14.030 generally grants authority to ADEC to adopt regulations to implement the SIP which could be read to include administrative enforcement authority. As noted above, ADEC has authority to pursue civil and criminal judicial actions to enforce violations of the SIP and the EPA has already determined that ADEC has adequate authority to enforce the SIP, including the FNSB Moderate Plan. If the commenter believes ADEC should have additional enforcement authority, the appropriate venue to pursue such a concern is with ADEC and the Alaska State Legislature. Furthermore, as noted by the commenter, the Borough has authority to issue warnings and citations to enforce key control measures adopted at the local level, such as the solid-fuel heating device curtailment program. The Borough control measures are included in Alaska's FNSB Moderate Plan submission and will become a part of the federally-approved SIP.

Another commenter contended that Alaska claimed it lacks the resources to implement and enforce regulations. The EPA is unaware of any such statement attributable to Alaska submitted as part of the FNSB Moderate Plan, and the commenter provided no reference or

citation for the EPA to evaluate this claim. Accordingly, the EPA has no information suggesting that Alaska has stopped funding, or lacks resources to make progress in improving air quality in the FNSB NAA. In fact, ADEC currently is devoting resources to the development of a Serious area attainment plan and the Borough is implementing local control measures incorporated into the SIP. In addition, as indicated previously, the EPA found that in its infrastructure SIP for the 2006 24-hour PM_{2.5} NAAQS, Alaska demonstrated that it had “adequate resources to implement, maintain, and enforce the standards” and thus met the 110(a)(2)(E)(i) requirement for adequate resources. 79 FR 66651.

Comment 11: One commenter noted that control measures in SIPs must apply continuously and “cannot operate as a ‘suite’ of controls that only collectively apply continuous controls.” The commenter specifically pointed to the -15 °Fahrenheit (F) temperature limitation on the mandatory solid-fuel heating device curtailment requirement as an example of “perhaps a defensible exception for the needs of the community, but one that results in the waiver of controls during peak periods of emissions.” The commenter also observed that the EPA and citizens must have the ability to bring enforcement actions to assure compliance and that state and local control measures that shield pollution sources from enforcement are not enforceable as required under CAA section 110(a)(2)(A).

Response 11: First, the EPA disagrees with the commenter’s general contention that a suite of control measures that operate together to provide for continuous regulation of emissions from a source is inconsistent with CAA requirements. The EPA agrees that SIP emission limitations must limit emissions from sources on a continuous basis. However, it may be infeasible for a single numerical emission limitation or control technology to apply continuously at all times to some sources. In such circumstances, a state may elect to impose alternative

emission limitations that apply to specific modes of source operation in order to assure that emissions from the source are, in fact, continuously controlled. The EPA recently restated and updated its policy with respect to continuous emission limitations in SIP provisions, noting that emission limitations as a whole must be continuous but that such limitations could be a combination of different numerical limits, control requirements or work practice requirements. *See* 80 FR 33889, June 12, 2015. Accordingly, a SIP that includes a combination of numerical limits or controls that are sufficiently stringent, and are legally and practically enforceable, can effectively operate together to limit emissions from a source on a continuous basis.

Second, the EPA disagrees with the commenter's view that the low temperature limitation on the applicability of the mandatory solid-fuel heating device curtailment requirement necessarily constitutes an impermissible exemption in the emissions limitation, because the curtailment requirement works in conjunction with other specific control measures in the SIP that continue to apply and limit emissions from this source category even during those low temperature events. It is important to clarify how Alaska is combining control measures in order to assure that the SIP imposes continuous emission limits on solid fuel heating devices, even when the curtailment requirement is suspended during extreme cold events.

Alaska is aware of the public health concerns associated with ambient PM_{2.5} caused by the use of solid fuel heating devices and devised a way to balance competing concerns about high PM_{2.5} concentrations with concerns about the need to provide adequate heat during extreme low temperature events for purposes of the FNSB Moderate Plan. When temperatures are below -15 °F, the Borough continues to issue alerts based on the forecasted concentrations of PM_{2.5}. Stage 2 alerts are called when PM_{2.5} levels are forecasted to reach 35 micrograms per cubic meter (µg/m³) or more. Stage 3 alerts are called when PM_{2.5} levels are forecasted to reach

55 $\mu\text{g}/\text{m}^3$ or more. The temperature limitation on the applicability of stage 3 alert requirements was included to address the public welfare concerns associated with precluding the use of solid-fuel heating devices during periods of extreme cold. Alaska explained that "... the temperature threshold is a feature of the episode program recognizing the unique challenges faced by residents during periods of extreme cold. Residents use wood heating as a form of supplemental heat to maintain livable conditions and mitigate economic hardships associated with high heating costs." 2017 Clarification, p. 18.

To address these competing concerns, Alaska and the Borough structured the stage 3 alert requirements to allow the continued use of certain devices during periods of extreme cold. When temperatures are below -15 °F during stage 3 alerts, the prohibition on the use of all solid-fuel heating devices, masonry heaters, pellet fuel burning appliances, cook stoves, fireplaces, or waste oil burning appliances does not apply. However, the stage 2 prohibition on the use of uncertified solid-fuel heating devices and hydronic heaters that are not EPA Phase II qualified continues to apply. In addition, even when the temperature limitation on the applicability of stage 3 alerts applies, the users of solid-fuel heating devices must continue to meet the applicable opacity emission limitation and continue to comply with the requirement to burn only dry, properly seasoned wood (with a moisture content of 20% or less). Thus, the EPA believes that the opacity limit and dry wood requirement work in conjunction with the mandatory curtailment program to limit emissions from solid-fuel heating devices on a continuous basis, even for stage 3 alerts that occur during periods of extreme cold.

The EPA notes that Alaska is currently in the process of developing the Serious area plan for the FNSB NAA, and is reevaluating the need for additional emission reductions to attain the 2006 24-hour $\text{PM}_{2.5}$ NAAQS. In particular, Alaska is considering the need for emissions

reductions during periods of extremely low temperatures, which can often coincide with meteorological conditions most likely to result in inversions and exceedances of the 2006 24-hour PM_{2.5} NAAQS. Specifically, on July 18, 2017, Alaska proposed regulatory revisions to eliminate the current temperature threshold limitation as part of its efforts to develop a Serious area plan. The EPA supports the further efforts of Alaska and the Borough to address the difficult, but necessary issue of controlling emissions during periods of extreme low temperatures.

Finally, the EPA agrees with the commenter that state and local control measures in the SIP need to be legally and practically enforceable. A core principal of the CAA is that the EPA's approval of a control measure into a SIP makes the measure a federally-enforceable component of the SIP that the State, the EPA or citizens can enforce in the event of violations. In this final action, the EPA is approving into the Alaska SIP, among other control measures, the mandatory solid-fuel heating device curtailment program, the 20% opacity emission limitation, and the dry wood requirement, and these measures will become federally-enforceable elements of the SIP for the FNSB NAA.

C. Comments on Rules

Comment 12: One commenter claimed that the EPA must disapprove the FNSB Moderate Plan because it “includes undesirable and unlawful relaxations of existing SIP measures, in violation of CAA Section 110(I).” For this reason, the commenter objected to six specific State regulations that Alaska included in the FNSB Moderate Plan.

Response 12: In light of this comment, the EPA reanalyzed the six regulations identified by the commenter. A comparison of the State regulations submitted to the EPA for review and approval into the SIP against existing SIP provisions is provided in the docket for this action. We

respond below to the concerns identified by the commenter with respect to these specific regulations. For the reasons stated below, we disagree that the submitted regulations constitute relaxations, and thus the inclusion of these measures into the SIP as part of the FNSB Moderate Plan does not raise concerns related to CAA section 110(l).

Comment 12.a. 18 AAC 50.065(f). Wood Smoke Control and PM_{2.5} Nonattainment Areas.

The commenter objected to our approval of a provision that prohibits open burning from November 1 to March 31 because Alaska did “not adequately explain how the dates for the open burning ban were chosen.” The commenter expressed concern that exceedances of the 2006 24-hour PM_{2.5} NAAQS may occur outside the November 1 to March 31 open burning prohibition season. The commenter also objected to language in the FNSB Moderate Plan that would allow a local open burn permit program to replace the current open burning prohibition at some point in the future because it is “worded so vaguely without any limits” and does not specify “a process for State approval” or “minimum program requirements, including record-keeping, public reporting, and adequate enforcement authority.” Additionally, the commenter stated that “[i]f it is necessary to authorize some variances to the seasonal open burn ban – for example, for legitimate ceremonial or limited recreational purposes – the State should have adopted detailed regulatory language identifying the types of activities that might be eligible for a local variance and necessary conditions for any such variance.”

Response 12.a. We disagree with the comment that Alaska did not adequately explain the dates of the open burning prohibition, November 1 to March 31, in the FNSB Moderate Plan. We believe that the discussion of the open burning prohibition is adequate, including Alaska’s explicit consideration of lengthening the open burning prohibition to include October and April. *See* FNSB Moderate Plan III.D.5.7-22. As noted by the commenter, Alaska explained that it

analyzed air quality data for October and April and did not identify “significant air quality deterioration in those months as a result of normal open burning” and therefore, did not lengthen the open burning prohibition to include those two months. Regarding the commenter’s concern that exceedances of the 2006 24-hour PM_{2.5} NAAQS may occur outside the open burning prohibition season, we note that under 18 AAC 50.065(e), ADEC can also prohibit open burning during air quality advisories, which are not restricted to the open burning season. As provided in 18 AAC 50.065(e), the air quality advisory pertaining to open burning is based on a determination that there is or will likely be inadequate ventilation to maintain ambient air quality standards, including PM_{2.5}.

We also disagree with the commenter’s assertion that the amendments to 18 AAC 50.065(f) are a relaxation of existing SIP measures. The dates of the open burning prohibition remain the same as when the EPA last approved 18 AAC 50.065(f) into the Alaska SIP in 1998. 63 FR 63983, November 18, 1998. More importantly, the amendments to 18 AAC 50.065(f) make the open burning prohibition applicable to PM_{2.5} nonattainment areas, whereas previously the prohibition applied only to PM₁₀ wood smoke control areas. Therefore, the amendments to 18 AAC 50.065(f) that extend the regulation to PM_{2.5} nonattainment areas in fact strengthen the existing SIP.

Similarly, we disagree with the commenter’s view that inclusion of the language contemplating a potential future open burn permit program to replace the current open burning prohibition is a relaxation of the existing Alaska SIP. First, as stated previously, the current SIP-approved regulation applies only to PM₁₀ wood smoke control areas and Alaska has now extended it to PM_{2.5} nonattainment areas as well. Second, as required by 18 AAC 50.065(f)(1) and (2), if a local area elects to develop an open burn permit program instead of the current open

burn prohibition, it may only do so if the program (i) does not cause or contribute to violations of the PM_{2.5} NAAQS and (ii) is approved into the *State Air Quality Control Plan* as adopted in 18 AAC 50.030. We have determined that Alaska's amendment of 18 AAC 50.065 to extend the open burning prohibition to PM_{2.5} nonattainment areas while simultaneously allowing the future option of a local air quality open burn permit program is therefore not a relaxation, but a strengthening of the current SIP.

Regarding the commenter's concern that the amendment is vague and does not provide limits or specify a process for state approval of a local open burn permit program, we note that the provision does not itself constitute an approval of any such local open burn permit program. The provision merely contemplates such a permitting program in the future, and one that would have to meet certain requirements. For example, the condition in 18 AAC 50.065(f)(1) that a local open burn permit program cannot cause or contribute to violations of the PM_{2.5} NAAQS provides one appropriate limitation on potential open burn permit programs. Additionally, Alaska has an established process for approving plans and adopting them into 18 AAC 50.030. The condition in 18 AAC 50.065(f)(2) that the local open burn permit program must be included in the *State Air Quality Control Plan* adopted by reference in 18 AAC 50.030 provides an appropriate state process for evaluation and approval of any such potential program in the future. We also note that if Alaska seeks to create such an open burn permit program in the FNSB NAA in the future, that will require a SIP revision subject to EPA review and approval, including an analysis that the SIP revision would not be less stringent than the current SIP in accordance with the requirements of CAA 110(l). Alaska has confirmed that the approval of any open burn permit

program in the future must be submitted to the EPA as a SIP revision. Alaska's interpretation letter is included in the docket for this action.⁸

With respect to the commenter's concern that the language in the FNSB Moderate Plan that contemplates potential future open burn permit programs in lieu of the prohibition on open burning is vaguely worded and provides no indication of "what constitutes a lawful local air quality open burn permit program and no limit to the range of activities that might be authorized ..." the EPA agrees that the amendment leaves unaddressed many aspects of a local open burn permit program that would need further development and clarification. Also, as noted above, any future local open burn permit program that is developed to operate in lieu of the open burning prohibition must be submitted to Alaska for incorporation into the *State Air Quality Control Plan* and then submitted to the EPA for review and approval. Accordingly, assuming a local open burn permit program is developed in the future, the appropriate time to consider the issues the commenter raises, e.g., the range of activities authorized by the program, recordkeeping and reporting requirements, adequate enforcement authority, and other aspects that pertain to the lawfulness of the program, including whether the program adequately assures that permitted open burning will not cause or contribute to a violation of the PM_{2.5} standard, would be when a locality develops and then submits such a permit program to Alaska and the EPA for review. At present, 18 AAC 50.065(f) merely clarifies that localities can choose to pursue a permit program in lieu of an outright seasonal prohibition on open burning. To the extent the commenter is concerned about reliance on a local, rather than state permitting program, we previously determined that Alaska provided necessary assurances that "where the State has relied

⁸ See ADEC letter, *Clarification regarding Open Burning regulation 18 AAC 50.065(f)*, July 13, 2017, in the docket for this action.

on a local or regional government, agency, or instrumentality for the implementation of any SIP provision, the State has responsibility for ensuring adequate implementation of the SIP” with respect to the 2006 24-hour PM_{2.5} NAAQS as required by CAA section 110(a)(2)(E)(iii). 79 FR 66651.

Finally, we disagree with the commenter’s suggestion that a future open burn permit program would have to address the process for variances related to ceremonial and recreational fires. We note that ceremonial and recreational fires are specifically excluded from Alaska’s amended definition of open burning in 18 AAC 50.990(65)(B). Because these activities are not subject to the open burning prohibition, there would not be a need for future variances related to such fires. We agree, however, that to the extent a future permitting program may include a process for seeking variances for activities subject to the burn ban, provisions related to such variances should provide adequate definitions and specifications to allow for necessary implementation and enforcement, as well as evaluation by Alaska and the EPA before approval as a revision to the current SIP.

Comment 12.b. 18 AAC 50.075(d). Solid Fuel-fired Heating Device Visible Emission Standards. The commenter objected to the addition of 18 AAC 50.075(d) which limits solid fuel-fired heating device operation during PM_{2.5} air quality episodes. The commenter claimed that the provisions weaken another part of the existing SIP-approved portion of the regulation, paragraph (b), by providing conditions for lifting a prohibition on the use of wood-fired heating devices during an air quality episode. The commenter also objected to the provisions that allow for a temporary waiver from the requirement because they are “too broad and too discretionary.” However, the commenter acknowledged that due to the “extremely cold winter and high price of fuel in Fairbanks, exemptions from curtailment for a sole source of heat and financial hardship

are an absolute necessity.” Additionally, the commenter stated that Alaska should adopt a curtailment program similar to one in Sacramento, California. The commenter also suggested that “to ease the impact of a mandatory, episodic wood-burning curtailment program on community members,” Alaska should adopt a “fuel oil subsidy program that would help offset the additional expense of fuel oil use.”

Response 12.b. The EPA disagrees that the addition of new 18 AAC 50.075(d) creates a relaxation of existing 18 AAC 50.075(b) as contemplated by CAA section 110(l). We note that paragraph (b) only prohibits operation of a wood-fired heating device in an area for which Alaska has declared an air quality episode with respect to SO₂, carbon monoxide (CO), or PM₁₀, in accordance with 18 AAC 50.245. Neither 18 AAC 50.075(b) nor 18 AAC 50.245 explicitly applied to PM_{2.5}. Alaska has specifically added the new 18 AAC 50.075(d), and the related new 18 AAC 50.246, to impose a comparable prohibition on wood-fired heating devices in areas for which Alaska has declared an air quality episode specifically for purposes of the PM_{2.5} NAAQS. The existing prohibition on operation of wood-fired heating devices in 18 AAC 50.075(b) is thus unaffected by the addition of 18 AAC 50.075(d), which applies only to PM_{2.5}. Furthermore, the addition of paragraph (d) provides limitations on solid-fuel heating device operation in PM_{2.5} nonattainment areas that previously did not exist in the Alaska SIP. Therefore, we consider the addition of paragraph (d) to be a necessary strengthening of the existing SIP, not a relaxation.

However, we believe the commenter raised valid concerns with the waiver provisions in 18 AAC 50.075(d)(2). The EPA is not taking final action on these waiver provisions because they are no longer part of the submitted FNSB Moderate Plan. On July 26, 2017, Alaska withdrew 18

AAC 50.075(d)(2) from its SIP submission. The withdrawal letter is included in the docket for this action.⁹

With respect to the comments about the type of curtailment program and the suggestion that state and local officials provide a fuel oil subsidy, we note that states have discretion in formulating their attainment plans, so long as they meet the applicable requirements of the Act. In the FNSB NAA, Alaska has adopted a number of control measures to address emissions from solid fuel heating devices that are designed to help the area attain the 2006 24-hour PM_{2.5} NAAQS given the facts and circumstances of this particular area. As we stated in our proposed rule, we believe the mandatory solid-fuel heating device curtailment program in the FNSB Moderate Plan is appropriately suited for the FNSB NAA in that it provides for implementation of a curtailment program that will reduce emissions in a manner that can facilitate program adoption and implementation by the community. 82 FR 9046. Again, we anticipate that Alaska will be reexamining its approach to controlling emissions from this source as part of the development of the Serious area attainment plan for the FNSB NAA, in order to identify and adopt BACM/BACT level controls, as appropriate. At that time, Alaska may reevaluate approaches that have been successfully adopted and implemented in other nonattainment areas and new approaches suggested by the public.

Comment 12.c 18 AAC 50.076. Solid Fuel-fired Heating Device Fuel Requirements; Registration of Commercial Wood Sellers. The commenter generally supported this regulation, which sets forth requirements for fuels that can be used in solid fuel-fired heating devices. However, the commenter expressed concern that it does not require year-round use of “dry” or

⁹ See ADEC letter, *Withdrawal of items from the State Implementation Plan submittal for the Fairbanks North Star Borough nonattainment area*, July 26, 2017, in the docket for this action.

“seasoned” wood like the Borough ordinance does and stated that the EPA must explicitly approve the Borough ordinance as an enforceable part of the SIP. In addition, the commenter stated that the mandatory component of Alaska’s wood seller registration program should apply immediately, not when the area is reclassified to Serious and suggested that Alaska use “a simple” wood moisture content labeling program that identifies the wood as “dry” or “wet.”

Response 12.c. The EPA notes that Alaska included the provision identified by the commenter, Borough code 21.28.030.F, in the FNSB Moderate Plan in its November 23, 2016 supplemental submission. Borough code 21.28.030.F lists the types of fuels that cannot be burned in a solid-fuel heating device. This provision applies at all times and prohibits the burning of wood that has a moisture content greater than 20 percent. The local rules that Alaska included in the FNSB Moderate Plan will become a part of the federally-approved SIP. Accordingly, upon the effective date of this action, Borough code 21.28.030.F will thus become a federally-enforceable component of the SIP applicable in the FNSB NAA.

Regarding the commenter’s suggestion that Alaska use a more simplified wood moisture labeling system for this program, such as “dry” or “wet,” we note that states have discretion in formulating their attainment plans, so long as they meet the applicable requirements of the Act. In this instance, we believe that the method of labeling moisture content adopted by Alaska adequately conveys the necessary information to wood users to facilitate the related requirement to burn only dry wood, and thus the alternative form of labelling suggested by the commenter is not required. We are therefore approving Alaska’s regulations, including the requirement that wood sellers document three moisture content measurements on the moisture content disclosure. The EPA notes that the mandatory component of Alaska’s wood seller registration program was implemented on August 15, 2017.

Comment 12.d. 18 AAC 50.077. Standards for Wood-fired Heating Devices. The commenter supported Alaska's emissions standard for new installations of wood-fired heating devices in 18 AAC 50.077 as a critical step toward improving air quality in the FNSB NAA, but objected to the "scaling of the standard" and asserted that there "should be no exception for small or large devices" and that "devices larger than 350,000 BTUs should be required to meet the same emissions standard." The commenter also stated that Alaska failed to give a reasonable justification for not strengthening 18 AAC 50.077 by establishing an emission standard for coal burning devices. Additionally, the commenter expressed concern that wood-fired heating devices that do not meet the 18 AAC 50.077 emission standards can be sold if they are to be installed outside the FNSB NAA and that only a written confirmation is required from the buyer stating that the device will be installed and used in an area other than the FNSB NAA. The commenter requested that the address where the non-conforming device will be installed should be included in the confirmation, that the confirmation be notarized, and that sellers be required to keep the confirmation for 5 years. Although not directly related to 18 AAC 50.077, the commenter also stated that the requirement for replacing uncertified wood stoves at time of home sale should be adopted and implemented immediately, rather than set aside for future implementation as a contingency measure in the FNSB Moderate Plan.

Response 12.d. The EPA agrees with the commenter that it is important that solid-fuel heating devices that are to be installed in the FNSB NAA meet stringent emissions standards. Alaska's emissions standards for wood-fired heating devices in 18 AAC 50.077 are similar to, or more stringent than, the EPA's current New Source Performance Standards for new residential wood heaters and hydronic heaters (wood heater NSPS). 80 FR 13672, March 16, 2015. However, we believe the commenter is incorrect in claiming that 18 AAC 50.077 contains

exemptions based on device size because all devices are addressed, whether they are rated under 350,000 Btu per hour or greater than 350,000 Btu per hour. The provisions in 18 AAC 50.077(b) and (c) provide emissions standards for devices “rated under 350,000 Btu per hour” for hydronic heaters and wood stoves, respectively, whereas 18 AAC 50.077(d) provides emissions standards for wood-fired heating devices that have a “rated size of 350,000 Btu or greater per hour.” Thus, 18 AAC 50.077 does not contain the exemptions described by the commenter. Additionally, 18 AAC 50.077 (b), (c), and (d) each require devices to meet EPA standards or meet the same “particulate matter annual average emission limit of 2.5 grams per hour.”

We disagree with the comment that Alaska did not establish emission standards for new coal-burning device installations in the FNSB Moderate Plan. Although the commenter is correct that 18 AAC 50.077 does not establish such emission standards, the emission standards for “Borough listed appliances” in section 020 of Borough code chapter 21.28 apply to coal heating devices. Additionally, section 030.A prohibits the installation of a solid fuel burning appliance in the FNSB NAA if the appliance is not listed by the Borough. We note that “solid fuel burning appliance” is defined in section 010 to include coal stoves, coal-fired hydronic heaters, and coal-fired furnaces. Alaska adopted Borough code chapter 21.28 sections 010, 020, and 030 into the FNSB Moderate Plan that was submitted to the EPA on November 23, 2016. Upon the effective date of this action, these Borough provisions will be adopted into the federally-approved SIP. Thus, Alaska has imposed emission controls on coal fired stoves in the FNSB NAA sufficient for purposes of the FNSB Moderate Plan. Alaska acknowledged the public health concerns associated with emissions from coal fired stoves in the FNSB Moderate Plan and the EPA anticipates that Alaska will further evaluate potential controls for these sources in the development of the Serious area plan.

We also disagree with the commenter regarding the need to revise the written confirmation requirements in 18 AAC 50.077(f) for sales of wood-fired heating devices to be installed outside of the FNSB NAA to include additional requirements such as notarization and retention of forms. The requirements of 18 AAC 50.077(f) specify that all new wood-fired heating devices to be installed or used in the FNSB NAA must meet certain emission standards and provides that a person who intends to sell or otherwise convey a wood-fired heating device that does not meet those standards must receive written confirmation from the buyer or operator that the device will not be installed or used in the FNSB NAA. The EPA believes that this provision provides sufficient notice (in addition to the regulatory text of 18 AAC 50.077 and other education and outreach efforts conducted by ADEC and the Borough) to potential buyers of the prohibition on such installations in the FNSB NAA and adequately documents their awareness and agreement to comply. Although the additional requirements suggested by the commenter may be helpful, we believe the current requirements devised by Alaska are sufficient.

With respect to the comment that Alaska should implement immediately the requirement for replacing uncertified wood stoves at the time of home sale, rather than implement it as a future contingency measure, the EPA notes that the measure has been implemented. The requirement became effective on June 9, 2017, the effective date of reclassification of the area to Serious. 82 FR 21711.¹⁰

Comment 12.e. 18 AAC 50.246. Air Quality Episodes and Advisories for PM_{2.5}. The commenter expressed concerns that compliance with curtailments remain voluntary under the 18 AAC 50.246 provisions for PM_{2.5} air quality episodes and advisories and that the provisions “do

¹⁰ See ADEC letter *Wood-Fired Heating Device Requirement – Remove or Replace Non Compliant Devices Upon Property Sale, Lease or Conveyance – Effective Date: June 9, 2017*, in the docket for this action.

not protect public health in Fairbanks or promote attainment of the 24-hour PM_{2.5} NAAQS.” The commenter also objected to the lack of a definition for the word “curtailment.”

Response 12.e. First, we disagree with the commenter’s concern about the absence of a specific definition of the term curtailment. In Alaska’s current SIP-approved regulations and the regulations submitted with the FNSB Moderate Plan, the word “curtailment” is used in a general sense and does not apply to a particular category of sources. Therefore, we do not take issue with the use of the word “curtailment” in 18 AAC 50.246 or the fact that it lacks a specific regulatory definition.

Second, we acknowledge that under 18 AAC 50.246(c)(1), curtailments are voluntary “from any person issued a permit under this chapter whose stationary source’s emissions might impact the area subject to the advisory.” Thus, the commenter is correct that compliance with the curtailment contemplated in this provision is voluntary for the affected stationary sources (Alaska defines “stationary source” in AS 46.14.990 as “any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant”). However, we note that 18 AAC 50.246(c)(1) applies only to permitted stationary sources and it applies statewide.

By contrast, Alaska has adopted a mandatory curtailment program for the FNSB NAA that applies to all solid-fuel heating devices in the event that Alaska or the Borough issues an alert based on high ambient PM_{2.5} levels. Compliance with the solid-fuel heating device curtailment is mandatory, not voluntary. We believe that the provision at 18 AAC 50.075(e), in conjunction with 18 AAC 50.246, provides Alaska authority to prohibit the operation of solid-fuel heating devices in the FNSB NAA. The prohibition on the operation of solid-fuel heating devices issued under 18 AAC 50.075(e) and Borough code 21.28.050 provide Alaska the ability to implement advisories and prescribe actions as a backstop to the Borough’s existing solid-fuel

heating device curtailment program, which is incorporated in the *State Air Quality Control Plan*, adopted by reference in 18 AAC 50.030, and is also being adopted into the federally-approved SIP in this action. Specifically, Borough code 21.28.050 requires the issuance of advisories or alerts when PM_{2.5} concentrations are expected to reach certain levels (defined as Stage 1, Stage 2 and Stage 3). These alerts impose mandatory restrictions on the operation of solid-fuel heating devices in the FNSB NAA, or specified Air Quality Control Zone. Accordingly, both Alaska and the Borough have authority to impose a mandatory curtailment on the operation of solid-fuel heating devices during PM_{2.5} air quality episodes. See FNSB Moderate Plan III.D.5.11-3.

Comment 12.f. 18 AAC 50.245(b) and (c). Air Quality Episodes and Advisories for Air Pollutants other than PM_{2.5}. The commenter noted that the current version of 18 AAC 50.245 approved into the Alaska SIP provides that ADEC will declare air quality advisories. In the FNSB Moderate Plan, Alaska has revised the rule to provide that either ADEC “or a local air quality control program” will declare the advisories. The commenter objected to these revisions because “they do not specify a single authority responsible for air alerts” and “there is potential for confusion and inaction.” The commenter also stated that Alaska “should not delegate authority to a local air quality control program that is unwilling or unable to fully implement regulatory requirements.”

Response 12.f. The EPA disagrees that authorizing the relevant local air quality control program (i.e., here the Borough) to declare advisories, as well as ADEC, is an inappropriate revision of the existing SIP. Under 18 AAC 50.245, ADEC or a local air quality control program may declare air quality episodes and advisories for SO₂, PM₁₀, and CO.¹¹ The commenter’s concern about potential confusion in areas that have a local air quality program, such as the

¹¹ The EPA notes that Alaska addresses PM_{2.5} air quality episodes and advisories in 18 AAC 50.246.

FNSB NAA, is addressed by the requirements of AS 46.14.400, which provides authority for ADEC to authorize local air quality control programs to operate in lieu of ADEC's air quality program. Under AS 46.14.400(d), a cooperative agreement between ADEC and the local air quality district must specify, among other things, the respective duties and enforcement responsibilities of the local air quality district and ADEC. Thus, where a local air quality district has been authorized to administer a local air quality control program and declare alerts, the Memorandum of Understanding (MOU) specifies that responsibility. The MOU between ADEC and the Borough (ADEC-FNSB MOU) was submitted with the FNSB Moderate Plan. FNSB Moderate Plan appendix III.D.5.12-54. It specifies that the Borough will "continue to implement, as needed, the Borough's emergency episode prevention and response plan for CO." The ADEC-FNSB MOU does not identify the Borough as the authority for declaring alerts for SO₂ and PM₁₀, thus ADEC would declare those air alerts. The EPA believes that although 18 AAC 50.245 does not specify one authority for calling SO₂, PM₁₀, and CO alerts, the MOU required by Alaska statute adequately specifies the entity responsible for calling alerts when it is not ADEC.

We also believe that the requirements of AS 46.14.400(d) address the commenter's concern that Alaska should not delegate authority to a local air quality control program that is unwilling or unable to fully implement regulatory requirements. The cooperative agreement must specify the respective enforcement responsibilities of the local air quality district and ADEC. According to the ADEC-FNSB MOU, ADEC has enforcement responsibility for all currently permitted facilities that are under ADEC authority. ADEC and the Borough have joint responsibility for responding to public complaints about air pollution within the Borough. The ADEC-FNSB MOU provides a flow chart for identifying appropriate enforcement actions for the Borough to take, for ADEC to take, or for joint enforcement actions. See FNSB Moderate Plan

appendix III.D.5.12-57. Additionally, as we stated earlier, Alaska has provided necessary assurances that “where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any SIP provision, the State has responsibility for ensuring adequate implementation of the SIP” with respect to the 2006 24-hour PM_{2.5} NAAQS as required by CAA section 110(a)(2)(E)(iii). 79 FR 66651. In the event that a local air quality control program is not meeting its responsibilities, the EPA anticipates that Alaska will take appropriate steps to assure that the SIP is properly implemented and enforced within all areas of the state, as required by the CAA.

D. Other Comments

Comment 13: Two commenters expressed concern about the high PM_{2.5} values recorded by ambient air quality monitors in the FNSB NAA. One commenter noted that “the North Pole Fire Station monitor currently records the highest values in the non-attainment area” and “[t]he most recent design value was 124 µg/m³, that is, 354 percent of the 24-hour PM_{2.5} NAAQS.” The commenter further asserted that the “EPA and the State have a legal and a moral obligation to develop a plan to clean up the Borough’s polluted air.” This commenter stated 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.” In addition to expressing concerns about public health, the other commenter described personal experiences with health issues “because of chronically poor air quality” and stated that “[a]nother study of premature mortality in our area is needed.” This commenter also expressed concerns about air quality monitoring, claiming that the “air quality is getting worse,” that Alaska has tried “to disprove monitoring data from a Neighborhood site in North Pole by claiming it is a microliter,” and that Alaska removed a special purpose monitor “known as the Watershed Monitor from an

area in Fairbanks where levels were recorded for many months (months in three consecutive years) often higher than the North Pole Monitor.” The commenter also noted that a “MetOne Neighborhood Monitor in the area continues to show dangerously high levels.”

Response 13: We agree with the concerns about high ambient PM_{2.5} levels in the FNSB NAA. We acknowledge that control measures have been adopted into the FNSB Moderate Plan to improve air quality and although the PM_{2.5} values generally have decreased, they remain high. However, we note that the high monitored PM_{2.5} values are not a basis for disapproval of the FNSB Moderate Plan. The EPA has already reclassified the FNSB NAA from Moderate to Serious because these high monitored values indicated continued nonattainment, which under CAA sections 188 and 189, imposes additional and more stringent attainment plan requirements. 82 FR 21711. This reclassification obligates Alaska to reevaluate and strengthen its attainment plan control strategy as necessary to meet the more stringent Serious area requirements and to provide for attainment of the 2006 24-hour PM_{2.5} NAAQS by the applicable Serious area attainment date. Regarding the comment that another study on premature mortality is needed, although such a study may be a valuable source of information to the community, it is not a requirement under the CAA as part of an attainment plan and is therefore beyond the scope of this action.

In response to the comments about air quality monitors, we affirm that the North Pole Fire Station monitor continues to operate as a regulatory monitor and that it is a neighborhood scale monitor. As discussed in our proposal, the EPA expects that Alaska will include the data from the North Pole Fire Station monitor in the analyses for the development of a Serious area attainment plan for the FNSB NAA. 82 FR 9037. Regarding the comment about the removal of the special purpose monitor, the EPA is aware that high concentrations of PM_{2.5} commonly exist

in parts of the nonattainment area that are not routinely and continuously monitored by the Borough or the State. Special purpose monitors supplement the monitoring network used for meeting the EPA's minimum monitoring requirements found in Appendix D of 40 CFR part 58. Monitors used for satisfying the EPA's minimum monitoring requirements remain at a fixed location for an extended period (longer than 24 months) so that air quality measurements can be used for regulatory decision making purposes. Special purpose monitoring data augment the data collected from the minimum required network and are used to ensure that this minimum monitoring network is appropriately sited and adequately represents the air quality of the community. As such, it is not uncommon for special purpose monitors to be operated for only a short duration at any given location. In its monitoring network plan, Alaska explained that special purpose monitors are moved to better understand the air quality impacts experienced in various neighborhoods and that the special purpose monitoring sites usually remain in one location for two to six weeks.¹² In addition, the EPA appreciates the community's willingness to assist in citizen monitoring and recognizes that achieving air quality goals in the FNSB NAA is a collaborative effort.

Comment 14: One commenter stated that the FNSB Moderate Plan included "mitigation efforts from state legislative grants obtained by Rep. Tammie Wilson that were not scientifically or practically carried out and for which no report, data, or proper accounting is available."

Response 14: We reviewed the FNSB Moderate Plan and did not identify mitigation efforts as suggested by the commenter. Additionally, the commenter did not provide specific information for the EPA to evaluate the claim that the FNSB Moderate Plan relied on such

¹² The EPA approved the 2015 Alaska annual monitoring network plan on October 28, 2015. See *2015 Alaska Monitoring Network Approval Letter* in the docket for this action.

efforts. The EPA therefore does not find this comment to provide a basis for disapproval of the FNSB Moderate Plan.

Comment 15: One commenter stated that Alaska “claimed they can’t meet CAA requirements without making any reasonable effort to do so.” This commenter also stated that the FNSB Moderate Plan “does not appear to meet the Federal requirements or especially the spirit of the CAA,” and asked that “[i]f Alaska’s Moderate SIP is being accepted because the Administrator of the EPA failed to respond within the established timeline to Alaska’s SIP submission, then that should be made clear.”

Response 15: The commenter did not provide specific information about the claims made by Alaska that they cannot meet CAA requirements. We have reviewed the FNSB Moderate Plan and did not identify any such claims. As discussed in our proposal, the EPA is approving the FNSB Moderate Plan because we found that it meets the substantive statutory and regulatory requirements for base-year and projected emissions inventories, precursor demonstrations, analysis and imposition of RACM/RACT, RFP, QMs, and a demonstration that attainment by the December 31, 2015 attainment date was impracticable. *See* 82 FR 9053.

With respect to the commenter’s question concerning whether this approval was influenced by the timing of the action, the EPA acknowledges that our final action is outside of the timeline prescribed by the CAA. The EPA’s inability to take timely action was the result of a number of factors including our ongoing work with Alaska to supplement the FNSB Moderate Plan. However, as noted above, the EPA’s decision to approve the FNSB Moderate Plan in this action is based on the content of the plan and its consistency with applicable statutory and regulatory requirements, and was not influenced by the timing of our final action.

Comment 16: One commenter stated that because the RACM/RACT analysis is flawed, the impracticability and RFP demonstrations are inadequate. This commenter also stated that reclassification to Serious and the requirement that Alaska will “have to submit amendments to its plan applying stricter control measures to bring the area into compliance, do not diminish the importance of EPA’s decision on the State’s current plan...” and “does not relax the Clean Air Act’s requirements for the current submission.”

Response 16: As discussed in section II.A above, we disagree with the comment that the RACM/RACT analysis is flawed and we therefore disagree with the comment that the impracticability and RFP demonstrations are not approvable. We agree with the comment that reclassification to Serious does not relax the Moderate area requirements. Where we discussed reclassifying the FNSB NAA to Serious in our proposal, our intention was to explain that although Alaska and the EPA considered certain control measures infeasible in the context of the FNSB Moderate Plan, the reclassification to Serious obligates Alaska to reevaluate potential control measures and strengthen its attainment plan control strategy as necessary to meet the more stringent Serious area requirements.

III. Final Action

Under CAA section 110(k), the EPA is approving the FNSB Moderate Plan for the 2006 24-hour PM_{2.5} NAAQS. Specifically, the EPA finds that the FNSB Moderate Plan meets the substantive statutory and regulatory requirements for base-year and projected emissions inventories, precursor demonstrations, analysis and imposition of RACM/RACT level emission controls, RFP, QMs, and a demonstration that attainment by the December 31, 2015 attainment date was impracticable. In addition, the EPA is approving the 2017 motor vehicle emissions budgets because they are derived from an approvable RFP demonstration and meet the

requirements of CAA section 176(c) and 40 CFR part 93, subpart A. The EPA is also approving the exceptional events demonstrations. Accordingly, the EPA finds that the FNSB Moderate Plan, for the FNSB NAA for the 2006 24-hour PM_{2.5} NAAQS, meets applicable CAA title I, part D requirements for purposes of approval under section 110(k) of the CAA.

The EPA is approving the *State Air Quality Control Plan* and state and local rules that were submitted as part of the FNSB Moderate Plan on December 31, 2014; January 29, 2015; March 11, 2016;¹³ and November 23, 2016. The EPA is not acting on provisions that Alaska withdrew from the SIP submissions.¹⁴ Specifically, we are approving, but not incorporating by reference, the following two sections of the *State Air Quality Control Plan*: Volume II, section III.D.5 and Volume III, appendices, section III.D.5. We are incorporating by reference the submitted revisions to title 18 of Alaska Administrative Code (AAC), chapter 50 (18 AAC 50) sections 007, 010, 025, 065, 075, 076 (except (g)(11), 077, 245, 246, and 990. We are approving, but not incorporating by reference 18 AAC 50.076(g)(11) because it relates to enforcement provisions that if incorporated by reference may conflict with the EPA's independent authorities.

With respect to local rules, we are incorporating by reference Fairbanks North Star Borough Code chapter 21.28 sections 010, 020, 030 (except J), 050, and 060. We are approving, but not incorporating by reference, Fairbanks North Star Borough Code chapter 21.28 section 030.J because it relates to penalty provisions that if incorporated by reference may conflict with the EPA's independent authorities. We are also approving, but not incorporating by reference

¹³ We are not acting on the portions of the March 11, 2016 submission that are unrelated to the FNSB Moderate Plan. We address those portions of the March 11, 2016 submission in separate actions.

¹⁴ See Alaska Department of Environmental Conservation letter, *Withdrawal of items from the State Implementation Plan submittal for the Fairbanks North Star Borough nonattainment area*, July 26, 2017, available in the docket for this action

Fairbanks North Star Borough Code chapter 21.28 sections 040 and 070 because they relate to funding for voluntary initiatives being undertaken by the Borough to reduce emissions of PM_{2.5}.

IV. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of state and local regulations for solid-fuel heaters and open burning, as set forth in the amendments to 40 CFR part 52 below. Therefore, these materials have been approved by the EPA for inclusion in the State implementation plan, have been incorporated by reference by the EPA into that plan, are fully federally-enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of the EPA's approval, and will be incorporated by reference by the Director of the **Federal Register** in the next update to the SIP compilation.¹⁵ The EPA has made, and will continue to make, these materials generally available through <http://www.regulations.gov> and/or at the EPA Region 10 Office (please contact the person identified in the "For Further Information Contact" section of this preamble for more information).

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

¹⁵ 62 FR 27968, May 22, 1997.

- is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and it will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [**insert date 60 days after date of publication in the Federal Register**]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (*See* section 307(b)(2)).

The EPA Region 10 Acting Regional Administrator, Michelle Pirzadeh, signed the following final rule on 8/21/2017 and the EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this version of the final rule, it is not the official version. The official version will appear in a forthcoming FR publication.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: August 21, 2017.



Michelle L. Pirzadeh,
Acting Regional Administrator,
EPA Region 10.

For the reasons set forth in the preamble, 40 CFR part 52 is amended as follows:

PART 52 - APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart C - Alaska

2. In § 52.70, the table in paragraph (c) is amended by:

- a. adding, in numerical order, entry 18 AAC 50.007;
- b. revising entries 18 AAC 50.010, 18 AAC 50.025, 18 AAC 50.065, 18 AAC 50.075;
- c. adding, in numerical order, entries 18 AAC 50.076, 18 AAC 50.077;
- d. revising entry 18 AAC 50.245;
- e. adding, in numerical order, entry 18 AAC 50.246;
- f. revising entry 18 AAC 50.990;
- g. adding, in numerical order, entries 21.28.010, 21.28.020, 21.28.030, 21.28.050, and

21.28.060 at the end of the table under a new, undesignated heading for “Fairbanks North Star Borough Code Chapter 21.28 PM_{2.5} Air Quality Control Program.”

3. In § 52.70, the table in paragraph (e) is amended by:

- a. adding entries 18 AAC 50.076(g)(11), 21.28.030.J, 21.28.040, and 21.28.070 at the end of the table under a new, undesignated heading for “Regulations Approved but not Incorporated by Reference”;
- b. adding entries Volume II. Section III.D.5. and Volume III. Appendices Section III.D.5. at the end of the table under a new, undesignated heading for “Recently-Approved Plans.”

The additions and revisions read as follows:

§ 52.70 Identification of plan.

* * * * *

(c) * * *

EPA-APPROVED ALASKA REGULATIONS AND STATUTES

State citation	Title/subject	State effective date	EPA approval date	Explanations
Alaska Administrative Code Title 18 Environmental Conservation, Chapter 50 Air Quality Control (18 AAC 50)				
*	*	*	*	*
18 AAC 50.007	Local Government Powers or Obligations Under a Local Air Quality Control Program	2/28/15	[Insert date of publication in the <u>Federal Register</u>], [Insert <u>Federal Register</u> citation]	
18 AAC 50.010	Ambient Air Quality Standards	3/2/16	[Insert date of publication in the <u>Federal Register</u>], [Insert <u>Federal Register</u> citation]	except (7) and (8)
*	*	*	*	*
18 AAC 50.025	Visibility and Other Special Protection Areas	11/26/16	[Insert date of publication in the <u>Federal Register</u>], [Insert <u>Federal Register</u> citation]	
*	*	*	*	*
18 AAC 50.065	Open Burning	3/2/16	[Insert date of publication in the <u>Federal Register</u>], [Insert <u>Federal Register</u> citation]	
*	*	*	*	*
18 AAC 50.075	Solid Fuel-fired Heating Device Visible Emission Standards	11/26/16	[Insert date of publication in the <u>Federal Register</u>],	

			<u>[Insert Federal Register citation]</u>	
18 AAC 50.076	Solid Fuel-fired Heating Device Fuel Requirements; Registration of Commercial Wood Sellers	11/26/16	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	except (g)(11)
18 AAC 50.077	Standards for Wood-fired Heating Devices	11/26/16	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	
*	* * *	*	*	* * *
18 AAC 50.245	Air Quality Episodes and Advisories for Air Pollutants Other Than PM-2.5	2/28/15	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	
18 AAC 50.246	Air Quality Episodes and Advisories for PM-2.5	2/28/15	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	
*	* * *	*	*	* * *
18 AAC 50.990	Definitions	3/2/16	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	
*	* * *	*	*	* * *
Fairbanks North Star Borough Code Chapter 21.28 PM_{2.5} Air Quality Control Program				
21.28.010	Definitions	3/2/15 (borough effective date)	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	
21.28.020	Borough listed appliances	1/15/16 (borough effective date)	<u>[Insert date of publication in the Federal Register],</u> <u>[Insert Federal Register citation]</u>	

The EPA Region 10 Acting Regional Administrator, Michelle Pirzadeh, signed the following final rule on 8/21/2017 and the EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this version of the final rule, it is not the official version. The official version will appear in a forthcoming FR publication.

21.28.030	Prohibited acts	10/1/16 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	except J
21.28.050	Forecasting exceedances and restrictions in the air quality control zone during an alert	6/26/15 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	
21.28.060	No other adequate source of heat determination	8/12/16 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	

* * * * *

(e) * * *

EPA-APPROVED ALASKA NONREGULATORY PROVISIONS AND QUASI-REGULATORY MEASURES

Name of SIP provision	Applicable geographic or nonattainment area	State submittal date	EPA approval date	Comments
*	*	*	*	*
Regulations Approved but not Incorporated by Reference				
18 AAC 50.076(g)(11)	Solid Fuel-fired Heating Device Fuel Requirements; Registration of Commercial Wood Sellers	11/26/16	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	
21.28.030.J	Prohibited Acts. Penalties.	10/1/16 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	Fairbanks North Star Borough Code Chapter 21.28 PM _{2.5} Air Quality Control Program.
21.28.040	Enhanced voluntary removal, replacement and repair program	1/15/16 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	Fairbanks North Star Borough Code Chapter 21.28 PM _{2.5} Air

The EPA Region 10 Acting Regional Administrator, Michelle Pirzadeh, signed the following final rule on 8/21/2017 and the EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this version of the final rule, it is not the official version. The official version will appear in a forthcoming FR publication.

				Quality Control Program.
21.28.070	Voluntary burn cessation program	4/24/15 (borough effective date)	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	Fairbanks North Star Borough Code Chapter 21.28 PM _{2.5} Air Quality Control Program.
Recently-Approved Plans				
Volume II. Section III.D.5.	Fairbanks North Star Borough	11/23/16	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	Fairbanks North Star Borough PM _{2.5} Moderate Area Plan.
Volume III. Appendices Section III.D.5.	Fairbanks North Star Borough	11/23/16	[Insert date of publication in the Federal Register], [Insert Federal Register citation]	Only with respect to the Fairbanks North Star Borough PM _{2.5} Moderate Area Plan.

* * * * *