Supplemental Materials

Air Quality Impacts from Oil and Natural Gas Development in Colorado

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COLORADO
Department of Public Health & Environment

REGIONAL AIR QUALITY COUNCIL

Dedicated to protecting and improving the health and environment of the people of Colorado

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December 14, 2018

U.S. Environmental Protection Agency
EPA Docket Center
EPA-HQ-OAR-2018-0226
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Docket ID No. EPA-HQ-OAR-2018-0226

To Whom It May Concern:

The Colorado Department of Public Health and Environment (CDPHE) and Regional Air Quality Council (RAQC) submit the following comments on the U.S. Environmental Protection Agency's proposed *Determinations of Attainment by the Attainment Date, Extensions of the Attainment Date, and Reclassification of Several Areas Classified as Moderate for the 2008 Ozone National Ambient Air Quality Standards*, published on November 14, 2018 in the Federal Register[1] (hereinafter referred to as the "Determinations"). We want to thank the EPA for proposing to grant Colorado the attainment date extension provided for under the federal Clean Air Act, Section 181, 42 U.S.C. §7511(a)(5), and for soliciting comments on a variety of timelines related to submittal deadlines for elements of a State Implementation Plan (SIP) for areas classified as Serious nonattainment for the 2008 National Ambient Air Quality Standard for ozone (2008 NAAQS).

Colorado is commited to aggressively pursuing strategies to reduce ozone precursor emissions and bring down ground-level ozone values in order to protect the health of our citizens. Over the past decade, Colorado has been a leader in developing innovative strategies to significantly reduce volatile organic compound (VOC) and nitrogen oxide emissions (NO_x) from various industrial sectors.[2] In 2010 and 2011, the Colorado Legislature enacted the "Clean Air Clean Jobs Act" and the Colorado Air Quality Control Commission (Commission) adopted its Regional Haze SIP, reducing NO_x emissions from power plants by tens of thousands of tons per year. Since then, Colorado's power producers have continued to commit to transitioning to cleaner forms of energy, which will result in significant additional NO_x emissions in the coming years.

Over the past several years, Colorado has completed a number of sucessful initiatives aimed at reducing VOC emissions from the oil and gas sector. In 2014, Colorado adopted cutting-edge, first-in-the-nation rules to reduce VOC and methane emissions from oil and gas exploration and production and

[1] 83 Fed. Reg. 56,781 (Nov. 14, 2018).
[2] *See, e.g.,* Colorado Air Quality Control Commission Regulation Number 7, Statement of Basis and Purpose, §§ XXI.G, XXI.I, XXI.J, and XXI.K.

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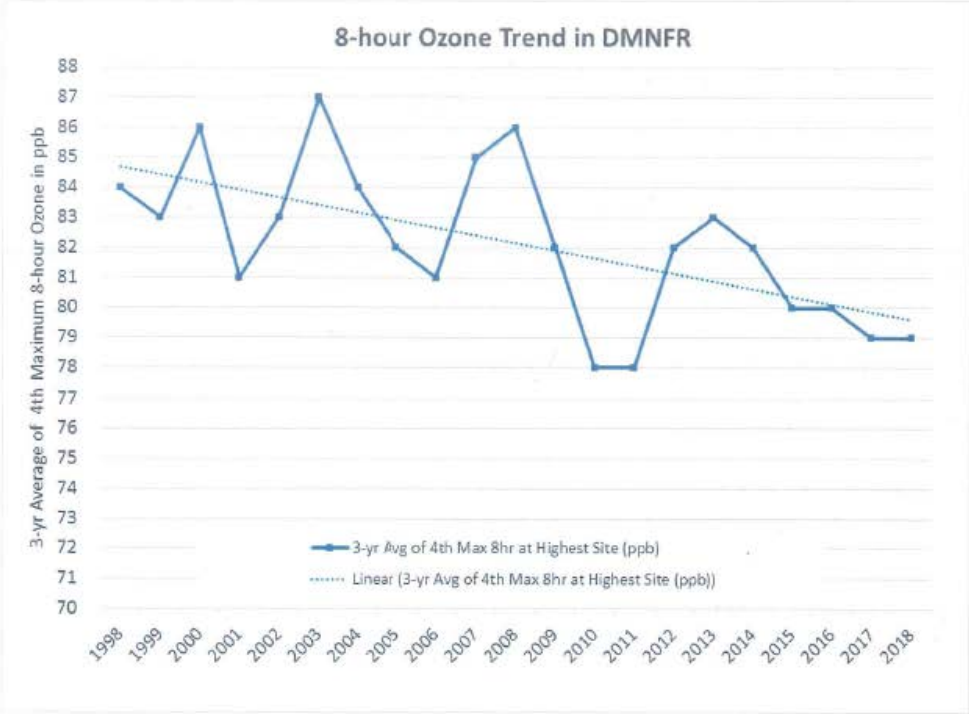
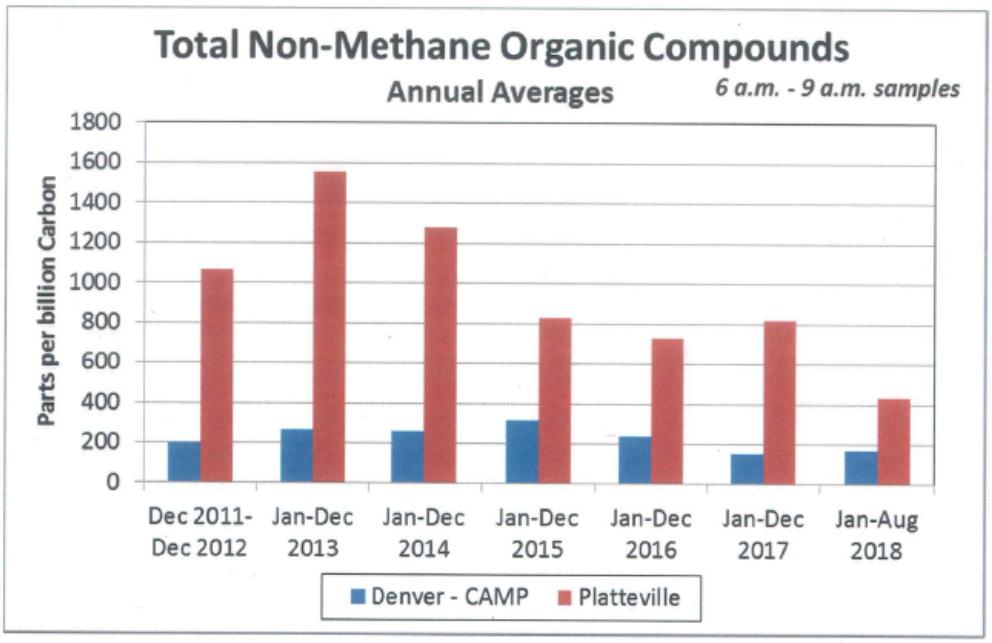
midstream facilities.[3] Colorado estimated that these rules would result in annual VOC emission reductions of nearly 100,000 tons per year. In recognition of this achievement, Colorado received EPA's Clean Air Excellence Award for Regulatory/Policy Innovations. Since that time, Colorado has continued its efforts to reduce VOC emissions, passing additional regulations addressing ozone precursors in 2016 and 2017. In 2018, Colorado adopted new control measures and work practice standards for engines, boilers, turbines, and other combustion equipment. Also in 2018, Colorado adopted new measures applicable to breweries. During the 2017 and 2018 ozone seasons CDPHE spearheaded a voluntary emission reduction effort aimed at the oil and gas industry and other significant sources of VOCs. Finally, in 2018, CDPHE finalized a comprehensive set of guidelines for the design, operation, and maintenance of condensate storage tanks, which have long been the largest source of VOC emissions in the Denver Metro/North Front Range ozone nonattainment area (DMNFR). As a result of all of these efforts, Colorado has seen a dramatic decline in ambient levels of oil and gas related VOCs. The below chart shows the downward trend in DMNFR ozone design values at the sites with the highest 3-year average of the 4th maximum 8-hour ozone in parts per billion.



The second chart below shows the downward trend in non-methane organic compounds based on samples gathered in the downtown area of Denver compared with samples gathered in the Platteville area, which is located in the oil and gas production area of the DMNFR.

[3] *See* Regulation Number 7, Statement of Basis and Purpose, § XXI.N. Significantly, Colorado proactively adopted the 2014 requirements on a state-only basis, not because it was required to as part of a federally mandated SIP.



Despite its success in dramatically reducing VOC and NO_x emissions, Colorado continues to face challenges in meeting both the 2008 and 2015 NAAQS. This is due in large part to the fact that the large majority of ozone concentrations in the DMNFR are the result of emissions outside of the State's control, including naturally occurring emissions and emissions transported from other states and countries. Given this reality, and the fact that Colorado has already significantly reduced ozone precursor emissions within the DMNFR and across the State, achieving additional reductions in ambient ozone levels will require time and hard work to develop and implement meaningful emission reduction strategies.

Fortunately, this work is already underway. Currently, though not subject to any SIP planning deadlines under the Clean Air Act, CDPHE has three emission reduction stakeholder processes underway, including: 1) the Statewide Hydrocarbon Emission Reduction (SHER) group, which is examining hydrocarbon emission reductions measures across the oil and gas sector, from upstream activities all the way through final transmission to the consumer; 2) the Pneumatics Taskforce, which is collecting data on the operation of pneumatic controllers and considering the best methods to ensure proper operation of those controllers; and 3) architectural coatings and consumer products stakeholder process, which is considering additional limits on the VOC content of various products offered for sale in Colorado. The SHER group and the Pneumatics Taskforce were set up by the Commission[4] and designed to continue from 2018 through early 2020. Separately, the RAQC, working closely with CDPHE, has established three emission reduction committees, which are taking a comprehensive look at other additional emission control strategies that could be adopted for both stationary and mobile sources of emissions. Completing all these assessments, and developing the type of comprehensive emission reduction plan necessary to achieve meangingful and lasting reductions in ozone levels will take time. It would significantly curtail the ability of these groups to be

[4] These groups were set up by the Commission during the November 2017 rulemaking whereby the Commission adopted additional control measures on Colorado's oil and gas sector.

successful if Colorado is denied the 1-year attainment date extension or is required to submit a Serious SIP before these groups can finish their work.

In order to further demonstrate Colorado's ongoing SIP planning efforts, Colorado notes that it has begun plan development activities associated with a Serious classification.[5] The RAQC is already under contract with a technical consultant to perform any photochemical modeling needed for a Serious SIP attainment demonstration.[6] Colorado's consultant is in the process of building a new modeling platform and developing a modeling protocol, which is expected to be finished within the next few months. This platform will be used for both a Serious SIP attainment demonstration for the 2008 NAAQS, and a potential Moderate SIP attainment demonstration for the 2015 NAAQS.[7] Before the modeling can commence, Colorado must complete emission inventory work. CDPHE is working internally and with stakeholders in gathering emission inventory data for these modeling efforts, and is seeking to have this inventory finalized in January 2019. As EPA is aware, ozone photochemical modeling is extremely complex and time-consuming. The modeling assessments needed to evaluate whether the DMNFR will attain the 2008 NAAQS by the Serious area attainment date is expected to proceed throughout 2019. In the event that the modeling does not show attainment, additional modeling will be needed using the reduction strategies identified by the stakeholder groups and committees discussed above. All of this is a multi-year process, which cannot be reasonably completed by early 2020.

Accordingly, as detailed below, CDPHE and the RAQC request that, consistent with the requirements of the Clean Air Act, EPA grant the proposed 1-year extension, and establish a coordinated SIP submittal schedule that will allow Colorado to develop the type of comprehensive plan necessary to successfully come into compliance with both the 2008 and 2015 NAAQS.

Colorado's Attainment Date Extension Request

The DMNFR was designated as a Marginal nonattainment area under the 2008 NAAQS, effective July 20, 2012.[8] The DMNFR failed to meet its July 20, 2015 attainment deadline[9] and was reclassified as a Moderate nonattainment area, effective June 3, 2016.[10] Following the reclassification, Colorado adopted and submitted to EPA a SIP revision with additional ozone control measures, including reasonably available control technology (RACT), and a demonstration that the DMNFR would not exceed the 2008 NAAQS in 2017.[11] Colorado's modeling proved reasonably accurate, and on June 4, 2018, Colorado submitted to EPA a demonstration that no monitor in the DMNFR had recorded any values that exceeded the 2008 NAAQS in

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[5] *See Procedures for Processing Bump Ups and Extension Requests for Marginal Ozone Nonattainment Areas,* from D. Kent Berry, dated February 3, 1994. Colorado isn't clear that this Memorandum applies to the DMNFR, which is not a Marginal area for the 2008 standard, but nonetheless offers the demonstration recommended therein.

[6] The RAQC, as the lead air quality planning agency for Colorado, is the agency that contracts for all ozone modeling. CDPHE does reimburse the RAQC for some of the costs incurred in performance of that modeling.

[7] This modeling work further supports Colorado's request, discussed in more detail later in this comment letter, to align the timing of Serious SIP submittals for the 2008 NAAQS with that of Moderate SIP submittals for the 2015 NAAQS. Because modeling is not required for marginal nonattainment areas, it is arguably not as consistent with Section 182(i) to align a Serious SIP submittal for the 2008 NAAQS with a Marginal SIP submittal for the 2015 NAAQS.

[8] 2008 Ozone NAAQS Designations, 77 Fed. Reg. 30,088 (May 21, 2012)

[9] EPA initially set an attainment deadline of December 31, 2015, but this was changed to July 20, 2015 after litigation. 2008 Ozone NAAQS Implementation Rule, 77 Fed. Reg. 30,160 (May 21, 2012); *Nat. Res. Def. Council v. EPA*, 777 F.3d 456 (D.C. Cir. 2014).

[10] Reclassification of Several Areas for the 2008 Ozone NAAQS, 81 Fed. Reg. 26,697 (May 4, 2016).

[11] EPA has approved the majority of Colorado's Moderate area SIP, including the attainment demonstration. *See* Approval and Promulgation of State Implementation Plan Revisions, 83 Fed. Reg. 31,068 (July 3, 2018).

2017,[12] and that it has complied with all requirements and commitments in its applicable SIP. Colorado therefore asked for a 1-year extension of the DMNFR's attainment date – from July 20, 2018 to July 20, 2019.

In the Determinations, the EPA proposes to grant this 1-year attainment date extension for the DMNFR, to find that Colorado has complied with all requirements and commitments pertaining to the DMNFR in its applicable SIP, and to establish a new attainment date of July 20, 2019 for the DMNFR.[13] The Clean Air Act provides that the EPA may, upon application by any State, extend for 1 year the area's attainment date if: (A) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan; and (B) no more than 1 exceedance of the NAAQS has occurred in the area in the preceding year.[14]

With respect to the first prong, the D.C. Circuit Court of Appeals has upheld EPA's decision to rely on a state's certification of compliance with its SIP to satisfy this requirement of the Clean Air Act.[15] The D.C. Circuit explicitly held that "EPA's presumptive reliance on state certification is reasonable because it is an efficient allocation of the agency's limited resources and personnel…and because EPA retains discretion to look beyond the certification if other evidence gives it reason to doubt the certification's credibility." Colorado's June 4, 2018 submittal contains a certification that the DMNFR is in compliance with the applicable SIP, and therefore meets this requirement.

With respect to the second prong, the EPA has promulgated a regulation providing for how it will determine whether an area has measured an exceedance of the NAAQS. Therein, the EPA has stated that a nonattainment area will meet the requirement for purposes of qualifying for the extension so long as the area's 4th highest daily maximum average in the attainment year (here, 2017) is 0.075 parts per million or less.[16] In its June 4, 2018 letter, Colorado certified that it met this requirement.

Colorado understands that two nongovernmental entities have requested a public hearing to object to the EPA's proposal to grant this extension to Colorado. Colorado further understands that one basis for their objection is that the DMNFR does not qualify for the second available extension, and therefore should not be granted the first extension. Eligibility is set out separately for the first extension and the second extension, and neither Congress nor the EPA tied availability of the first extension to an area's qualification for the second extension. Further, the federal regulation provides that an area "will meet" the second prong if it satisfies the requirements of the regulation (which the DMNFR does). Thus the EPA cannot deny the extension for reasons not cited in the regulation. For all these reasons, because the DMNFR has satisfied the criteria as set forth in the Clean Air Act and implementing regulations, the DMNFR is presumptively entitled to the extension.

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[12] This demonstration is based, in part, on EPA's concurrence into two wildfire-related exceptional events. *See* July 11, 2018 letter from Martin Hesmark, Assistant Regional Administrator, to Garry Kaufman, Air Pollution Control Division Director, concurring with CDPHE's request to exclude ozone data related to wildfire smoke events on September 2 and 4, 2017. Pursuant to 40 C.F.R. §50.14(b)(1), once the EPA has determined that a State satisfies the requirements for an exceptional event as stated in that section (which it did in the July concurrence letter), the EPA "shall exclude" that data from determinations such as the one at issue here.

[13] *Determinations*, 83 Fed. Reg. at 56,784.

[14] 42 U.S.C. §7511(a)(5).

[15] *Delaware Dept. of Nat. Resources and Environmental Control v. EPA*, 895 F.3d 90, 101-102 (D.C. Cir. 2018).

[16] 40 C.F.R. §51.1107(a)(1).

Submittal Timing for Serious Area SIP Elements

In the Determinations, the EPA offers different timelines for submittal of various SIP elements upon reclassification of specified areas to Serious. These timelines apply to the areas proposed for reclassification in the Determinations, not the DMNFR. However, Colorado has been advised by EPA Region 8 that should the DMNFR ultimately be reclassified to Serious, the same timelines could be applied. Therefore, EPA Region 8 requested that Colorado submit its comments on EPA's proposal at this time.

Colorado notes that it has an extensive history of bringing nonattainment areas into attainment. Further, it is Colorado's intention to prepare and submit a SIP as protective of public health as is feasible given the timing prescribed by the EPA. Shorter timeframes are less protective of public health, in that control measures that secure real reductions take significant time and effort to develop, adopt, and implement.

1. *Non-RACT Serious Area SIP Revisions, SIP Revisions, and Implementation Deadline for RACT Tied to Attainment*[17]

Colorado agrees with much of EPA's discussion regarding the Clean Air Act deadlines for Serious SIP submittals. Specifically, Colorado agrees that Section 182(c) of the Clean Air Act, 42 U.S.C. §7511a(c), provides that attainment demonstrations and reasonable further progress demonstrations will be submitted within 4 years after November 15, 1990, and that the November 1990 reference here has been interpreted to refer to the initial designation of an area as nonattainment under a given standard.[18] For the DMNFR, which was designated nonattainment for the 2008 NAAQS in 2012, that deadline has passed. In circumstances such as these, EPA has maintained that it has the "authority to adjust the applicable deadlines for the [area to be reclassified] 'as necessary or appropriate to assure consistency among the required submissions.'"[19] Colorado further agrees that as a result, the EPA has discretion in setting deadlines for submittal of Serious SIP elements, bounded by the direction of the Clean Air Act to ensure consistency among required SIP submissions for that area.[20]

EPA has proposed to require submittal within 12 months of the effective date of reclassification the Serious SIP requirements except for those RACT proposals a State has determined are not tied to attainment.[21] Colorado maintains that because EPA is directed to streamline SIP submittals when it considers

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[17] *Determinations,* 83 Fed. Reg. at 56,788.

[18] 42 U.S.C. §7511a(c)(2); *see also* 40 C.F.R. §51.1108(b).

[19] *See, e.g., Determinations of Attainment by the Attainment Date, Extensions of the Attainment Date, and Reclassification of Several Areas for the 2008 Ozone National Ambient Air Quality Standards*, 81 Fed. Reg. 26,697 at 26,699 (May 4, 2016); *Determination of Nonattainment and Reclassification of the Houston-Galveston-Brazoria 2008 8-Hour Ozone Nonattainment Area; Texas*, 81 Fed. Reg. 66,240 at 66,242 (Sept. 27, 2016).

[20] *See* 42 U.S.C. §7511a(i).

[21] While not a direct comment on EPA's proposal, Colorado notes that in contrast with EPA's description in the Determinations, it believes that to the extent proposed control measures do not expedite attainment (and cannot be implemented before the ozone season of the attainment year), those measures are not RACT for purposes of Section 182. The EPA has advised that it considers Section 182(b)(2) RACT (applicable to Serious areas pursuant to Section 182(c)) distinguishable from RACT required under Section 172(c)(1), 42 U.S.C. §7502(c)(1). EPA has allowed that control measures that do not expedite attainment by the attainment date are not considered Section 172 RACT. *NRDC v. EPA*, 571 F.3d 1245 (D.C. Cir. 2009). EPA has also articulated that measures can be Section 182 RACT even if they don't expedite attainment, and even if they cannot be implemented by the deadlines specified in federal regulations (*see* 40 C.F.R. §§51.1108(d) and 51.1112(a)(3)), if they are technologically and economically feasible, and it reiterates this distinction in the Determinations. It is Colorado's position that the Section 182 RACT requirement must be interpreted consistently with Section 172 because Section 182(b)(2) requires that the state submit a SIP "to include provisions to

appropriate deadlines, EPA should instead set a deadline for Serious SIP submittals under the 2008 NAAQS consistent with the Moderate SIP submittals that will be due for the DMNFR under the 2015 NAAQS. This is consistent with the approach for which EPA solicits comment for the implementation of RACT for Serious areas. The areas being reclassified to Serious include the areas classified as Marginal under the 2015 NAAQS that are also likely to be reclassified to Moderate under the 2015 NAAQS. Because there are no significant planning or SIP requirements for Marginal areas, and no RACT requirements at all, it is more consistent with the language of Section 182(i) to align the timing of SIP submittals with the requirements for Moderate areas under the 2015 NAAQS. This alignment would result in significant savings of Colorado's limited resources, as Colorado would therefore only need to develop one SIP for submittal to EPA. Further, Colorado could use its resources to consider and propose more significant emission reduction measures than it might otherwise be able to get approved with more limited timing.

As a second alternative, Colorado suggests that the language in the Clean Air Act and implementing regulations requiring submittal of Serious SIP elements within 4 years of November 15, 1990 be interpreted to require submittal of Serious SIP elements within 4 years of reclassification (instead of initial designation, as discussed above). Colorado recognizes that the EPA has previously indicated that it does not believe it has the authority to interpret the Clean Air Act in this manner.[22] However, EPA cited no authority for that proposition, nor is Colorado aware of any authority or reasoning supporting this conclusion. This interpretation maintains as much consistency as possible with the plain language of the Clean Air Act itself.

Notwithstanding the foregoing, if EPA finalizes the Determinations as proposed, Colorado requests that the EPA clarify that the DMNFR would, similarly with the areas proposed for reclassification in the Determinations, be given 12 months from the effective date of reclassification of the DMNFR in which to submit its Serious SIP, and not held to a submittal deadline in early 2020. Colorado is concerned that if and when the DMNFR is reclassified to Serious, the EPA would apply the Determinations to mandate submittal of a Serious SIP essentially concurrently with (or even prior to) that reclassification. Assuming that the EPA finalizes the Determinations in the next month or two, the deadline for Serious SIP submittals for areas reclassified now will fall in the January-February 2020 timeframe. Pursuant to the Clean Air Act, if Colorado does not qualify for a second 1-year clean data extension under Section 181(a)(5), Colorado could be reclassified to Serious in January 2020. If Colorado is required to submit its Serious SIP elements at the same time as areas being reclassified in the Determinations, it is possible that Colorado's deadline for submittal would pass before the DMNFR is reclassified, which puts Colorado in an untenable situation.

Further, Colorado has an unusual statutory requirement for SIPs – each SIP adopted by the Commission must go through a legislative SIP review process.[23] CDPHE submits newly adopted SIPs to the Colorado Legislature at the beginning of the legislative session in January, and the SIP review process may not conclude until close of session in May. In order to meet a SIP submittal deadline of January 2020, Colorado would therefore have to have its SIP approved by the RAQC[24] and the Commission in 2018, to undergo legislative review in 2019. As it is now December of 2018, Colorado cannot meet such a timeframe.

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require the implementation of [RACT] under section 7502(c)(1) of this title…." EPA cannot ignore the plain language of Section 182(b)(2), which directly references Section 172(c)(1), in applying the RACT requirement. Colorado's position here further supports a single deadline for submittal of all Serious SIP elements, which Colorado proposes to be aligned with the Moderate area SIP elements due under the 2015 NAAQS. Notwithstanding the foregoing, Colorado's comments speak to the separate timing proposed by the EPA in the Determinations.

[22] *See* 81 Fed. Reg. at 26,699 (May 4, 2016).

[23] *See* §25-7-133, C.R.S.

[24] The RAQC is the lead air planning agency pursuant to Colorado law, and SIPs must be presented to the RAQC for approval prior to being adopted by the Commission.

It is Colorado's position that a January or February 2020 deadline for submittal of Serious SIP elements for the DMNFR would essentially be impossible for Colorado to meet, and therefore would be arbitrary and capricious.

For all the foregoing reasons, Colorado requests that the EPA align the submittal of all Serious SIP elements for the 2008 NAAQS with the submittal of Moderate SIP elements for the 2015 NAAQS. At a minimum, though, Colorado requests that it be granted at least 12 months from the effective date of the reclassification of the DMNFR to Serious in which to submit the Serious SIP elements required of areas being reclassified in the Determinations.

2. RACT SIP Revisions Not Required for Attainment

In the Determinations, EPA proposes a submittal deadline of August 3, 2020 for RACT SIPs for sources with VOC and/or NOx emissions between 50 to 100 tpy (i.e. Serious area major sources not addressed in the Moderate area RACT SIP submittal).[25] EPA states that this deadline will be approximately 18 months from the effective date of final reclassification to Serious.[26] If the same timeline is applied to the DMNFR, this deadline would only be approximately 6 months after the reclassification of the DMNFR to Serious.

EPA notes that this timing would align with "some" of the SIP submittal deadlines for the 2015 NAAQS.[27]While Colorado will need to prepare a new emissions inventory and submit an emissions statement, there are no substantive SIP submittal deadlines that exist in August of 2020 for the DMNFR[28] – a Marginal nonattainment area for the 2015 NAAQS. Certainly, no RACT SIP is required for a Marginal area.[29] The purpose of Section 182(i) – ensuring consistency among required SIP submissions – is accomplished for RACT SIP submittals only if the RACT SIP submittal for the 2008 NAAQS is aligned with the RACT SIP submittal for the 2015 NAAQS.

EPA then points to the Clean Air Act provisions for ozone transport regions, Clean Air Act Section 184(b)(1), 42 U.S.C. §7511c(b)(1), which requires RACT SIP submittals within 2 years "after November 15, 1990." EPA solicits comment on whether to afford areas reclassified in the Determinations the full 2 years from effective date of reclassification to Serious for submittal of these Serious area RACT elements.[30] While Section 184(b)(1) does not apply to the DMNFR, because the DMNFR is not in the ozone transport region, this timeframe is consistent with the deadline for Section 182 RACT.[31] Colorado continues to assert that aligning the Serious SIP submittal timeframe – especially for RACT – with the Moderate SIP submittal timeframe for the 2015 standard is the appropriate course of action. However, in the alternative, Colorado

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[25] *Determinations,* 83 Fed. Reg. at 56,788.
[26] *Id.*
[27] *Id.*
[28] Colorado has already adopted its infrastructure SIP for the 2015 NAAQS. Colorado plans to submit the emission statement and the baseline inventory as required.
[29] 42 U.S.C. §7511a(a); *compare with* 42 U.S.C. §7511a(b)(2). *See also Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area: State Implementation Plan Requirements*, prepublication notice published on Nov. 7, 2018 at Page 49 ("The [Clean Air] Act does not require implementation of RACM/RACT in Marginal ozone nonattainment areas under the relevant implementation provisions in subpart 2.")
[30] As discussed above, Colorado asserts that the EPA should interpret "November 15, 1990" to mean the effective date of reclassification in all contexts related to submittals following reclassification, including this one.
[31] 42 U.S.C. §7511a(b)(2).

requests that EPA afford it 2 years (or at least 18 months) from the effective date of reclassification of the DMNFR to Serious in which to submit its Serious RACT SIP.

3. Implementation Deadline for Additional Serious Area RACT

In the Determinations, EPA is proposing two alternate timeframes for implementation of the control measures adopted as RACT. One possibility identified is that implementation would be required concurrently with the SIP submittal deadline – August 3, 2020. The other alternative identified is that implementation would be required no later than January 1st of the fifth year following reclassification (i.e. January 1, 2024), which aligns with the RACT implementation deadline for areas that will be reclassified as Moderate under the 2015 standard.[32]

Colorado believes that the second alternative is both preferable and more consistent with the Clean Air Act. Alignment of the submittal deadlines of the RACT SIP for areas reclassified to Serious under the 2008 standard with the RACT SIP for areas reclassified to Moderate under the 2015 standard preserves economy of resources and time. The extended timeframe also will allow Colorado to identify, adopt, and implement measures that ensure real reductions of ozone precursors and move the needle towards attainment of the NAAQS (which is, and should be, the real focus of the SIP program). Colorado just went through this process to implement RACT for major sources over 100 tpy in the DMNFR. Reclassification to Serious will result in an additional 600 major sources in the DMNFR. If RACT for sources newly classified as major (i.e. 50-100 tpy) must be implemented by August 3, 2020, it is unlikely that Colorado can consider any measures not already in place for sources over 100 tpy. Moreover, Colorado has identified additional types of major sources of VOC and NO_x between 50-100 tpy for which there were none over 100 tpy, for which it will have to develop RACT without the benefit of its previous efforts. Evaluating existing and potential control measures for each of these sources will be a challenge, let alone developing additional control measures where possible within the limited time proposed in the Determinations. Colorado spent more than a year evaluating RACT for its 53 current major sources, and two additional years developing additional control measures for a smaller subset of these major sources to further support its Moderate area RACT SIP. As a result, Colorado cannot realistically identify, adopt, and implement new control measures that secure real reductions where necessary from its major sources by August 2020, even if it begins this effort today.[33]

Conclusion

As reflected by its consistent and often-times ground-breaking emission reduction efforts since EPA's promulgation of the 2008 NAAQS, Colorado is committed to moving aggressively to bring down ozone levels in the DMNFR in order to protect the health of Colorado's citizens. In order for Colorado to be successful in meeting this objective, EPA needs to establish a reasonable SIP submittal schedule for the State consistent with the requirements of the Clean Air Act. Absent the granting of the proposed 1-year extension and alignment of the SIP submittal deadlines under the 2008 and 2015 NAAQS, Colorado faces the prospect of being required to submit three separate ozone SIPs within the next four years. This will entail a monumental administrative burden that will severly undermine the ability of Colorado to develop and implement signifcant ozone precursor reduction strategies.

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[32] This proposed timing also aligns with previous EPA actions with respect to implementation of control measures for Serious areas under the PM-2.5 NAAQS. *See* 40 C.F.R. §51.1010.

[33] Colorado notes that it's effort to identify sources and to begin to analyze potential controls is underway already, but, as described above, Colorado is currently prioritizing emission control strategies that obtain real ozone precursor reductions over formal development of a Serious SIP because those two efforts cannot both proceed full steam ahead on parallel tracks given Colorado's resources. Colorado seeks EPA support for its approach.

Accordingly, Colorado requests that the EPA grant the proposed 1-year extension and set one deadline for submittal of the DMNFR's Serious SIP and implementation of RACT, consistent with the deadlines that would be applicable to the DMNFR upon reclassification to Moderate for the 2015 NAAQS. This alignment serves the purpose and direction of the Clean Air Act – to allow States the ability to identify control measures that will truly make progress towards attainment of the NAAQS, and to set deadlines consistently amongst required submittals to minimize planning and administrative burdens, while maximizing Colorado's ability to develop the type of comprehensive emission reduction plan necessary to achieve our common objective of coming into compliance with both the 2008 and 2015 NAAQS.

Please contact counsel for the Colorado Air Pollution Control Division, Robyn Wille, at robyn.wille@coag.gov, with comments or questions regarding this letter.

Sincerely,

Garry Kaufman
Director, Air Pollution Control Division
Colorado Department of Public Health and Environment

Mike Silverstein
Executive Director
Regional Air Quality Council

cc: (via email)
Martha Rudolph, Director of Environmental Programs, CDPHE
Doug Benevento, Regional Administrator, EPA Region 8

Determination of Colorado Summer Background Ozone

Background ozone was estimated from the data presented in Table 2 [*Bien and Helmig*, 2018]. We considered the median summer ozone values for sites that are not located within large cities, and at < 2000 m elevation. Below is a partial reproduction of that table, with those considered sites highlighted in green. For comparison, the same analysis is also provided for DMA/NCFR suburban sites. Coordinates, elevation, and a map showing all sites are available in [*Bien and Helmig*, 2018].

Reproduction of Table 2 from Bien and Helmig. Overview of the median and 95th percentile summer O_3, and the daily median and 95th percentile summer amplitude of every site with data available for 2011 – 2015.

Site No	Site Name	Median Summer O_3 [ppbv]	95th Percentile Summer O_3 [ppbv]
1	Welby	37	69
2	Highland Reservoir	49	73
3	Aurora East	49	68
4	Eldora Ski Area	58	76
5	South Boulder Creek	43	71
6	Boulder Fire Station	32	57
7	Longmont	36	72
8	Trout Creek Pass	50	65
10	Goliath Peak	54	70
11	Mount Evans	62	77
12	Mines Peak	49	65
13	Denver - Camp	35	62
14	Denver - Carriage	41	72
15	Denver - Animal Shelter	38	67
16	La Casa	35	66
18	Chatfield Reservoir	46	75
19	U.S. Air Force Acad.	45	68
20	Manitou Springs	47	68
21	Rifle - Health Dept.	35	59
23	Flattops #3	52	64
24	Ripple Creek Pass	51	64
25	Sunlight Mountain	58	73
26	Wilson	50	65
27	Battlement Mesa	43	62
28	Glenwood Springs	33	55
29	Carbondale	32	54
30	McClure Pass	48	60
31	Gothic	41	59
32	Walden - Chandler Ranch	37	57
33	Arvada	40	74
34	Welch	44	71
35	Rocky Flats	50	76
36	Golden - NREL	48	75
38	Aspen Park	46	67
39	Shamrock Station	48	65
40	Ignacio	37	64
41	Bondad	39	64
42	RMNP - Long's Peak	51	70
43	Fort Collins - West	45	73
44	Rist Canyon	46	68
45	Fort Collins - CSU	37	66

46	RMNP - Collocated	49	68
47	Palisade	45	62
48	Grand Mesa	53	64
49	Silt - Collbran	50	64
50	CO Nat. Mon.	49	64
51	Lay Peak	44	61
52	Elk Springs	41	56
53	Cortez	40	61
54	Mesa Verde NP	50	64
56	Kenosha Pass	49	63
57	Fairplay	43	60
58	Ajax Mountain	54	66
59	Aspen	40	58
61	CO Plant Science Bldg.	41	58
62	Rangely	44	61
64	Norwood	44	62
67	Greeley - Weld Cty Twr	43	71
68	Briggsdale	41	64
69	Pawnee Buttes	47	65
70	Boulder - INSTAAR	39	65
71	Sugar Loaf Fire Dept.	40	65
72	Coughlin Meadows	45	64
73	Lyons	45	71
74	Dawson School	40	67
75	Lost Angels Fire Dept.	46	66
76	Boulder Atmos. Obs.	41	68
77	Niwot Ridge - Tundra	59	74
78	Niwot Ridge - C1	48	66
79	Niwot Ridge - Soddie	47	62
80	Dinosaur Nat. Mon.	45	64

Background Sites (green):

Range of highlighted sites:	32-49 ppb	54-65 ppb
Median of highlighted sites:	41 ppb	62 ppb
Mean of highlighted sites:	41 ppb	61 ppb

Suburban Front Range Sites (yellow):

Range of highlighted sites:	43-50 ppb	71-76 ppb
Median of highlighted sites:	46 ppb	73 ppb
Mean of highlighted sites:	46 ppb	73 ppb

Supplemental Materials Citations

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