



**COLORADO**  
Department of Public  
Health & Environment

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

March 17, 2015

U.S. Environmental Protection Agency  
EPA Docket Center (EPA/DC)  
Mail Code: 28221T  
1200 Pennsylvania Avenue N.W.  
Washington, D.C. 20460

**Re: *State of Colorado Comments, Docket ID EPA-HQ-OAR-2008-0699; FRL-9918-43-OAR***

To Whom It May Concern:

The Colorado Department of Public Health and Environment (CDPHE) submits the following comments on the U.S. Environmental Protection Agency's proposed National Ambient Air Quality Standards for Ozone, published in the Federal Register on December 17, 2014. We want to thank EPA for soliciting comments on a variety of different potential components to its proposed, revised ozone standard. We welcome the opportunity to submit these comments.

*Background of Ozone Regulation in Colorado*

EPA's promulgation of the 1997 National Ambient Air Quality Standard (NAAQS) for ozone of 0.08 parts per million (ppm), or 84 parts per billion (ppb), marked the first occasion in recent decades in which Colorado faced designation of a nonattainment area. State and regional agencies in the Denver metropolitan area entered into a voluntary Early Action Compact (EAC) with EPA in December 2002. That agreement laid out a process for achieving attainment with EPA's 1997 ozone NAAQS in an expeditious manner. The agreement set forth a schedule for the development, adoption and implementation of control measures into the state implementation plan (SIP), in order to meet and maintain compliance with the 84 ppb standard by December 31, 2007. The EAC Ozone Action Plan (SIP) was submitted to EPA in the summer of 2004. EPA promulgated approval of the Ozone Action Plan in the Federal Register (Vol. 70, Number 94, May 17, 2005). A revision to the Ozone Action Plan to preserve the reductions estimated in the original plan was approved by Colorado's Air Quality Control Commission (Commission) on December 17, 2006 and the Colorado Legislature in spring 2007, and submitted to EPA in February 2008.

In April 2004, EPA designated and classified areas of the country that violated the 1997 standard. At that time, based on the EAC, the EPA deferred a Denver-metropolitan and North Front Range (DMA/NFR) non-attainment area designation. The DMA/NFR area subsequently did not achieve the standard, due to high readings in July 2007 that resulted in a 3 year (2005-2007) Design Value of 85 ppb at one monitor (Rocky Flats North). The EPA's deferral of a nonattainment designation for the DMA/NFR area expired on November 20, 2007. EPA subsequently designated the DMA/NFR area as a





marginal ozone nonattainment area for EPA's 2008 8-hour ozone NAAQS (75 ppb), effective July 20, 2012. The marginal nonattainment designation did not impose any new planning requirements on Colorado; however, the area must meet the standard by 2015 or new requirements may be imposed. The rest of Colorado presently attains the 1997 and 2008 ozone standards.

Colorado is continuing to implement numerous strategies to reduce ozone. In 2008, the Commission adopted the Ozone Action Plan, imposing significant controls and other requirements in order to reduce ozone precursor emissions from the oil and gas industry. New federal motor vehicle emissions standards and Colorado's motor vehicle inspection and maintenance programs are also reducing ozone precursors. In November 2010, the motor vehicle inspection and maintenance program expanded from metropolitan Denver into parts of Larimer and Weld Counties to include Fort Collins, Greeley and nearby areas. The Commission approved a regional haze plan in 2011 that includes substantial oxides of nitrogen (NO<sub>x</sub>) emission reductions that will decrease ozone concentrations throughout the state. More than 35,000 tons per year of NO<sub>x</sub> reductions throughout Colorado will occur by the year 2018 through these actions. In addition, in early 2014 the Commission adopted regulatory changes to significantly reduce volatile organic compound (VOC) emissions from the oil and gas production sector. The regulatory revisions will reduce VOC emissions by approximately 93,000 tons per year in Colorado. Colorado has demonstrated time and again that it is a nationwide leader in reducing ozone precursor emissions.

### *The Proposed Range for the Ozone NAAQS*

CDPHE supports the establishment of an ozone standard at a level requisite to protect the public health with an adequate margin of safety. CDPHE recognizes that the proposed range of 65-70 ppb is reflective of the results of the standard review process, including recommendations from EPA's Clean Air Scientific Advisory Committee, on a standard that would be adequate to protect public health. Colorado will need to devote substantial time and resources to implementing any revised standard, the burden of which will increase as the standard is lowered. EPA should also take into consideration how implementation becomes more difficult as the standard approaches background levels, and whether the scientific basis and cost-effectiveness of the NAAQS decreases as the standard is lowered.

EPA's modeling currently predicts that Colorado's statewide ambient ozone concentrations will fall below a 70 ppb threshold by the year 2025, based on the reductions already achieved by Colorado. If EPA selects an ozone standard of 70 ppb, additional areas of Colorado will be designated nonattainment, at least until statewide ambient concentrations fall as low as EPA predicts. At a 65 ppb threshold, substantial portions of Colorado would be designated as nonattainment, likely triggering a requirement to prepare a complex (and perhaps multi-state) control plan. Development of such a plan may not be possible in EPA's suggested planning and implementation cycles, without substantial assistance from EPA. This plan would have significant implications for upwind sources on federal, tribal, private and state lands. Further, no such plan could prove to be feasible without significant state and federal resources. For example, Colorado dedicated significant resources over a period of six years, including both employee time and modeling costs, towards the development of its Regional Haze SIP.





Colorado's experience has revealed that the planning process to put together these complex plans with multi-state impacts requires significant resources that often exceed the resources available to states and EPA. A complex plan to ensure attainment with the ozone standard is likely to involve even more resources than did the preparation of the Regional Haze SIP. Without the significant involvement of neighboring states and EPA, development of comprehensive ozone SIPs becomes a daunting effort, compounded by the fact that Colorado may have no legal authority for implementing regional controls necessary to meet more stringent standards.

Lastly, at the 60 ppb concentration, a level considered in the proposal and upon which comments are being requested, Colorado could find the entire state in nonattainment status. A primary ozone standard at this low level would raise additional questions about scientific basis and Colorado's ability to craft an attainment plan. This is particularly the case when considering background levels, interstate transport, and Colorado's inability to impose controls on sources outside of its jurisdiction.

### *The Secondary Standard Should Not Be More Stringent than the Primary Standard*

CDPHE submits that the secondary standard should not be set at a level more stringent than the primary standard. This would be consistent with EPA's historical practice, insofar as EPA has historically set the secondary standard at a level equal to or higher than the primary standard.

CDPHE recognizes the importance of protecting Colorado's plants and wildlife. Protection of forest health and other agricultural resources is a priority for Colorado. Colorado is concerned that if the secondary standard is set at a level lower than the primary standard, or is set in a form different than the primary standard, Colorado could have rural areas designated nonattainment for the secondary standard, despite compliance with the primary standard. It would also increase the complexity of implementing an already complicated proposal. Moreover, EPA does not appear to have set forth any justification for requiring states to prepare nonattainment plans solely directed at the protection of plants and wildlife, which plans would impose more stringent controls than would be required of populated areas. While CDPHE agrees that it is important to protect its agriculture industry and other plant life, the primary focus of federal NAAQS should be, and has always been, the protection of human health.

For these reasons, CDPHE submits that the secondary standard should be set at a level no more stringent than the primary standard, and that the form of both standards should be the same. CDPHE supports the secondary standard as proposed by EPA – equal to the primary standard in both substance and form.

### *EPA's Proposal Does Not Address Elevated Background and Transport Issues in the West*

EPA data shows substantially higher background ozone is present in the western U.S., including Colorado. The Integrated Science Assessment (2013) demonstrates that spring and summer western background levels of ozone are substantially higher than those found in the east. In its proposal, EPA states that as of 2007, background levels range between 25-50 ppb, noting that the largest seasonal





averages occur in the western states. CDPHE submits that this data is outdated, and notes that Colorado's background levels are often higher than 50 ppb, reaching levels as high as 65-74 ppb. Such levels are well within, and even above, the proposed range. For example, between 2003 and 2014, the Gothic site near Crusted Butte has had an average design value of between 65 and 69 ppb. The United States Forest Service's Shamrock site has an average design value for the same time period of between 68 and 74 ppb. Both of these sites are in remote areas with few, if any, anthropogenic sources of ozone precursor emissions. The elevation of certain sites is just one contributing factor to the higher background levels. Colorado's elevated background levels have four primary sources: 1) stratospheric intrusions; 2) interstate transport; 3) international transport, primarily from Asia; and 4) wildfires and other smoke events. In its proposal, EPA states that western states' background issues are addressed by existing EPA policies for wildfire exceptions and exceptional events. However, the exceptional events policy does not, and cannot, fully address the elevated background levels in Colorado, and the difficulty these background levels create for complying with a revised ozone NAAQS, particularly at the low end of the proposed range.

The process of stratospheric intrusion can result in high ozone levels, mostly in the winter and spring. These stratospheric intrusions have led to exceedances of the existing 75 ppb standard, and will certainly lead to additional exceedances if the standard is lowered. If Colorado experiences a major stratospheric intrusion event, Colorado must prepare an exceptional events application. Colorado's last submission for a stratospheric intrusion exceptional event took the equivalent of three to four months of one staffer's time. This is a significant dedication of time and resources for the preparation of an application for which EPA has given little guidance as to the criteria by which it will be evaluated. As the standard is lowered, exceptional events will cause and contribute to exceedances on a more frequent basis, and the burden of submitting exceptional event applications will also increase.

Evidence from rural Colorado, Wyoming, and Utah monitoring shows that ozone can also regularly exceed existing standards due to emissions transported into Colorado from upwind sources. For example, at the Rangely monitor in the Uinta Basin, higher monitored values have been observed in recent years. While there are a few Colorado-based sources that impact the readings at the Rangely monitor in Northwest Colorado, the vast majority of the impact derives from sources located out of state. As another example, EPA's own figures show a contribution to Colorado's background levels (at the Chatfield monitor) of 3.88 ppb from Utah, Wyoming and California alone. Taking into consideration other states, EPA's data shows a total contribution to Colorado's background levels of 6.42 ppb from interstate transport. Proposed expansion of well development on federal lands has the potential to significantly increase emissions in the future in these upwind areas. Likewise, there is a real and significant impact on Colorado's background levels from international transport of emissions, particularly from Asia. Due to Colorado's unique geography and climate, and a phenomenon known as "deep-mixing," international emissions have a greater impact on Colorado's background levels than the same emissions have on other jurisdictions, such as California. While Colorado has taken significant steps to minimize emissions from sources in the state, upwind and international sources may not have equivalent controls or standards; further, Colorado has no ability to impose controls on sources outside of its jurisdiction.





Wildfires and other smoke events also contribute to Colorado's background levels, particularly in dryer seasons and years in which Colorado experiences higher than average numbers of such events. The contribution of wildfires and other events to Colorado's background levels is not currently addressed by EPA's exceptional events policy. The contribution remains significant even on days when fires and other events are not considered exceptional events. This contribution should be addressed by EPA in the final rule or implementation policies.

CDPHE reiterates that as a revised ozone standard approaches background levels – as the values discussed in the proposal quickly do in Colorado – attainment is made exceedingly difficult, unless EPA takes steps to specifically deal with this issue. Colorado strives to protect public health and welfare through targeted, cost-effective regulations. EPA should follow the same principles, and should not adopt a standard that imposes an undue burden on the state and its sources. Nor should EPA adopt a standard that could be unattainable due to background levels and transport issues.

CDPHE believes that the final rule – or, at a minimum, the implementation policy – should reinforce the requirement for upwind states, tribes and federal agencies to avoid causing or contributing to nonattainment in downwind states. CDPHE would also encourage EPA to evaluate whether the elevated background levels in the western U.S. warrants consideration of implementation measures distinct from those of the eastern states, where background is not as much of an issue. Further, a NAAQS at or approaching western states' background levels cannot properly be implemented without simultaneous revisions to the exceptional events rule, in order to streamline the processing of exceptional events requests.

### *EPA Must Revise its Exceptional Events Policy to Address Background Issues*

Repeatedly throughout the proposal, EPA recognizes that western states are faced with higher background concentrations of ozone, and more frequent events causing higher background levels. EPA points to its exceptional events rule as the primary means of addressing this issue. However, under EPA's existing procedures, submitting exceptional events is a huge administrative burden without a corresponding public health and environmental benefit. Further, a lower primary standard will mean more exceptional events in the west. CDPHE welcomes EPA's proposal to streamline the exceptional events rule, but notes that even a revised exceptional events rule likely would not completely address concerns about a NAAQS set at a level that might be unachievable due to elevated background levels.

Colorado has considerable experience with the current exceptional events policy. The burden of documenting an exceptional event is considerable. Such a demonstration amounts to a technical exercise akin to developing a SIP for a small area. Furthermore, the resources involved in preparing an exceptional events request are significant. Substantiating an exceptional events application can easily overburden a state's resources of time, staff and modeling capabilities. Obtaining EPA approval is a lengthy process that usually involves multiple rounds of review, challenges, added analysis, and new data retrieval and processing. EPA does not always act on exceptional events requests in a timely fashion. Colorado has numerous exceptional event evaluations being developed, and others already





submitted to the EPA that remain in limbo. A lower standard would likely result in more exceptional event submittals, burdening both the states and EPA.

The exceptional events rule should be revised to allow for a simplified and streamlined process for submittal and EPA review of exceptional event submittals. This revision should be simultaneous with the finalization of the NAAQS.

### *EPA Should Revise its Designation Criteria for Rural Transport Areas*

A major concern of CDPHE is EPA's current designation of rural transport areas. In Colorado, as in many western states, counties can be much larger than in the east. As a result, rural counties that are located adjacent to a county with a Metropolitan Statistical Area (MSA) are excluded from designation as a rural transport area. However, many of these rural counties have few sources and low population figures, considerations that actually support their designation as rural transport areas. For example, because the town of Durango (in La Plata County) is a MSA, the counties of Archuleta, Montezuma, San Juan and Hinsdale would be excluded from designation as a rural transport area.

In Colorado, many remote monitoring sites have design values between 63 and 69 ppb, well below the current standard, but within EPA's proposed range. These sites are located in counties adjacent to counties containing a MSA, which could result in their potential inclusion in a nonattainment area. This is an illogical result, achieving little if any public health and environmental benefits. This result also causes significant regulatory confusion, as these remote locations have few, if any, sources of anthropogenic ozone precursors. CDPHE submits that there is no practical way to obtain reduction in precursor emissions if there are no sources to reasonably control.

In its proposal, EPA also points to its rural transport area designation as a primary method of addressing concerns about background ozone, which EPA recognizes is a major concern in western states. For the reasons discussed above, EPA should revise its rural transport area designation process as part of the current rulemaking if EPA seeks to adequately address background issues. CDPHE recommends that EPA consider other measures, such as or distance or delineation of geographic basins, for purposes of designating rural transport areas, instead of simply looking to whether a county is adjacent to a county with a MSA.

### *EPA Should Issue Implementation Guidance Simultaneously With Any New Standard*

In its proposal, EPA acknowledges the need for implementation guidance to allow states to fully and adequately address the new standard. However, EPA only promises issuance of this guidance at some future date. Previous instances of delayed guidance have led to implementation challenges for states. For example, EPA only just finalized implementation guidance for the 2008 standard, in 2015. EPA indicates that it is not required to issue implementation guidance, and thus argues that states have no recourse should EPA delay or even entirely fail to issue such guidance for its proposal. However, timely guidance is necessary for implementation of a revised standard. By delaying such guidance, EPA





is truncating the available time states have to prepare SIPs, in contravention of the Clean Air Act, which provides states with three years from the date of promulgation of a revised NAAQS to submit a SIP.

Delays in the promulgation of implementation guidance waste state resources. EPA will not approve a SIP that does not comply with its guidance. However, if EPA doesn't issue the guidance simultaneously with the promulgation of the revised standard, EPA has essentially shortened the time in which states have to prepare their SIPs. As a result, states will spend months, if not years, preparing a SIP that EPA might ultimately disapprove because it does not comply with EPA guidance. The states have previously requested timely implementation guidance. CDPHE respectfully urges EPA to act on these requests. For all these reasons, CDPHE submits that EPA should issue guidance simultaneously with the revised standard.

### *EPA Should Revoke the Existing Standard of 75 ppb*

In its proposal, EPA has not clarified what steps it intends to take with respect to the existing 75 ppb ozone standard. EPA should provide clear, pragmatic pathways for states without creating administrative burdens that detract from actually doing the work of lowering emissions. EPA should streamline the SIP development process for states, leveraging efficiencies for modeling and rule drafting. For these reasons, CDPHE recommends that EPA revoke the existing standard to avoid the confusion and inefficiencies wrought by dueling standards, which has been a significant challenge with previous and existing ozone standards.

### *CDPHE Supports the Revision of the Air Quality Index*

In its proposal, EPA intends to revise the Air Quality Index (AQI) at the same time it finalizes the revised NAAQS. CDPHE supports the revision of the AQI to reflect the revised NAAQS in order to support the continued use of the AQI as a public health tool.

### *Conclusion*

CDPHE reiterates its appreciation to EPA for soliciting input on a wide range of issues relating to its proposal to lower the ozone NAAQS. CDPHE supports primary and secondary ozone standards that are based on sound science, and that can properly protect the public health and welfare through the implementation of reasonable, cost-effective measures. EPA should carefully consider the impact of a revised standard on Colorado and other states given elevated background levels in the Rocky Mountain west. CDPHE believes the proposal could benefit from additional consideration of background issues, as well as concurrent revisions of the exceptional events rule and simultaneous issuance of





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implementation guidance, in order to ensure states' ability to prepare SIPs in compliance with the proposal and the Clean Air Act.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in blue ink that reads "William C. Allison V".

William C. Allison V  
Director, Air Pollution Control Division

