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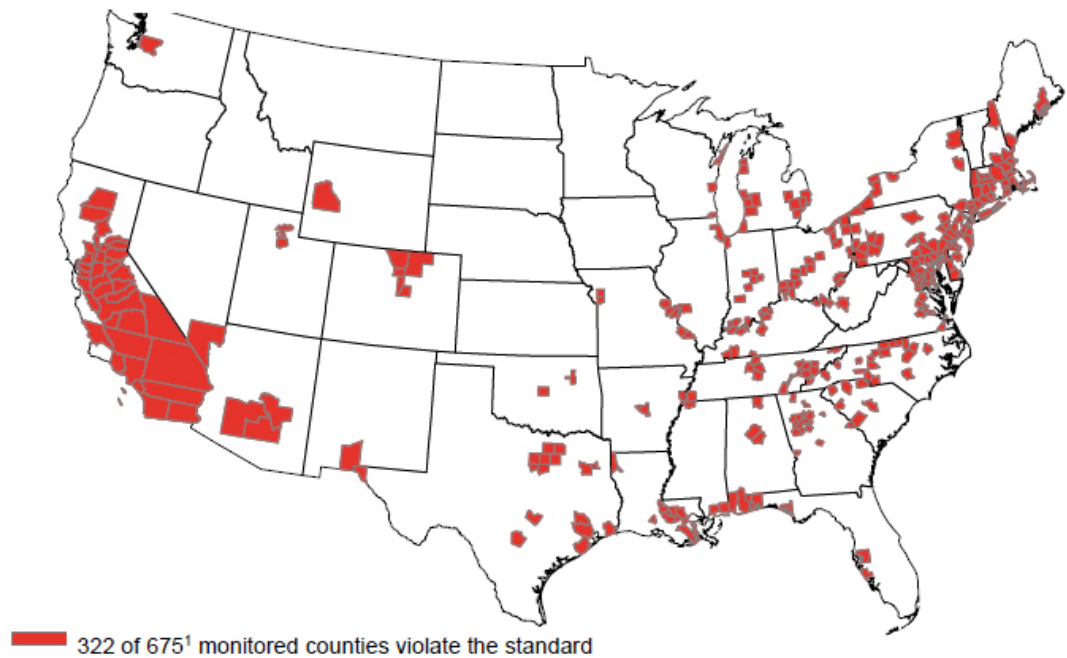
March 19, 2010

Ms. Lisa Jackson, Administrator  
Environmental Protection Agency  
Mail Code 6102T  
1200 Pennsylvania Ave., NW  
Washington, D.C. 20460

Re: **Proposed Rule Regarding the National Ambient Air Quality Standards for Ozone; Docket No. EPA-HQ-OAR-2005-0172**

Dear Ms. Jackson:

Thank you for the opportunity to submit public comment on the proposed revisions of the National Ambient Air Quality Standards (NAAQS) for ozone. The Colorado Livestock Association (CLA) is a membership organization that represents over 650 dairy, beef, swine, and sheep producers and industry partners in Colorado. CLA is concerned about EPA's proposal to revise the NAAQS for ozone. Given the close proximity of many of Colorado's most intense livestock production areas to Front Range counties that are already in violation of the 2008 standard of 75 ppb (fig. 1), changes in the ozone standard have the potential to directly impact Colorado's livestock industry.

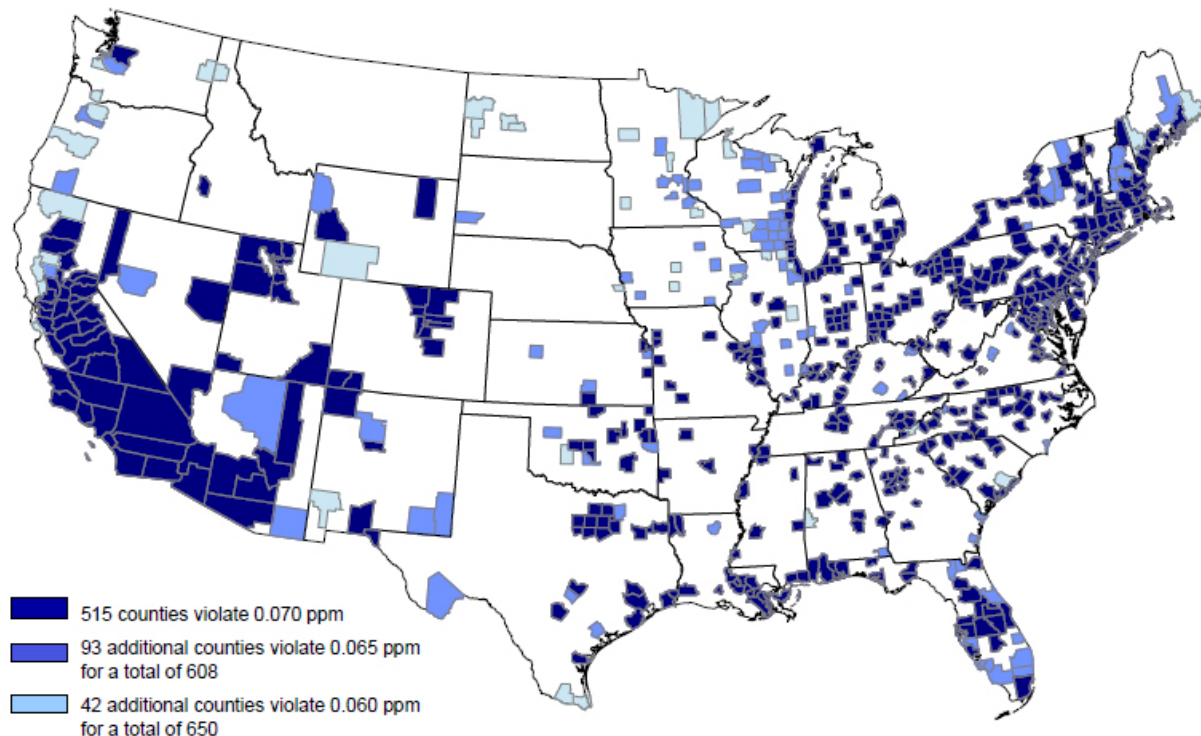


**Figure 1. Counties with monitors currently violating the 2008 ground-level ozone standard of 75 ppb based on 2006-2008 monitoring data (Jackson Kelly PLLC, 2010).**

**CLA believes that insufficient scientific support has been demonstrated to warrant revisions of either the 2008 primary or secondary NAAQS for ground-level ozone.**

## **Primary Standard**

The proposed changes to the primary standard for ozone would lower the allowable concentration of ground-level ozone from 75 ppb to somewhere between 60 and 70 ppb, bringing over 500 additional counties into non-attainment status (fig. 2). While the proposed standard would be consistent with the recommendations of the Clean Air Scientific Advisory Committee (CASAC), EPA based its reconsideration of the 2008 ozone NAAQS on studies of health and ecological effects of ozone that were included in the record for the 2008 NAAQS review. The “provisional” assessment of studies since the 2008 review concluded that new studies do not change the conclusions of earlier scientific assessments. CLA, therefore, contends that **there is insufficient new scientific information since the 2007 Staff Paper and 2008 Final Ruling to justify the implementation of a new standard.**



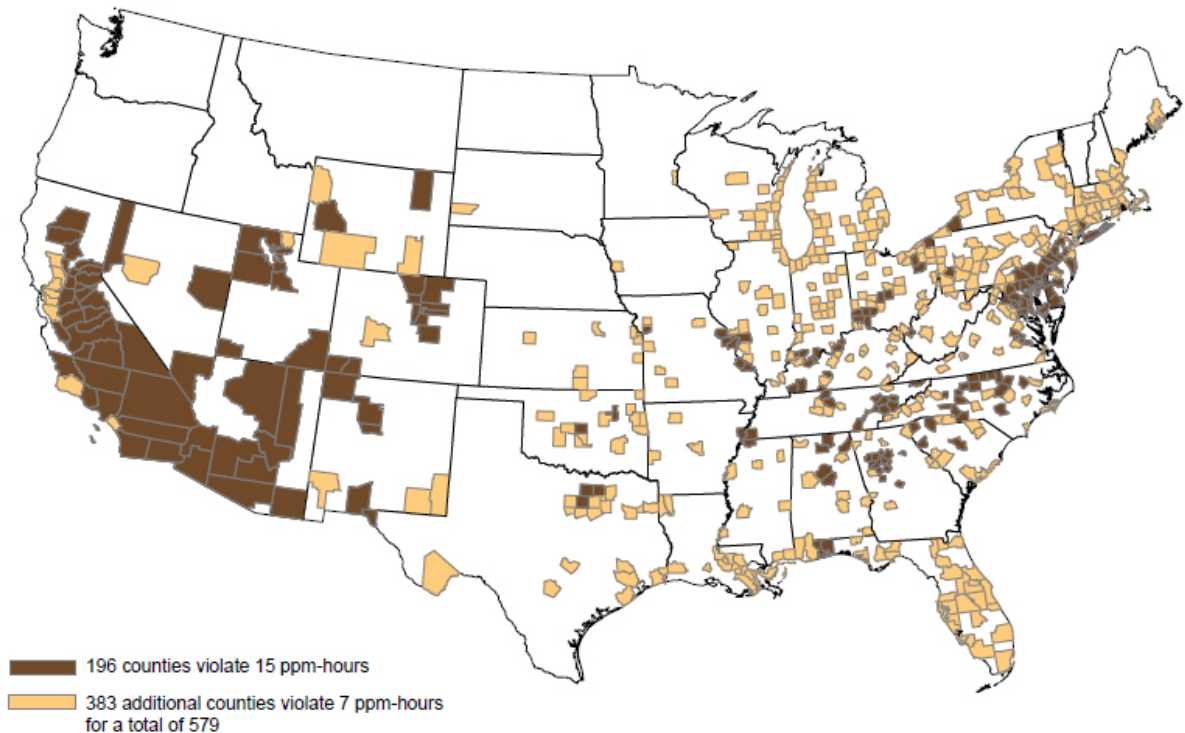
**Figure 2. Counties with monitors violating the proposed ground-level ozone primary standard of 60 to 70 ppb based on 2006-2008 monitoring data (Jackson Kelly PLLC, 2010).**

Central to the proposed primary standard for ozone is the assumption that natural background levels of ozone are between 15 and 35 ppb. Policy-relevant background (PRB) concentrations used in the ozone risk assessment were defined as “the [ozone] concentrations that would be observed in the US in the absence of anthropogenic emissions of precursors in the US, Canada, and Mexico” (2007 EPA Staff Paper). PRB plays a significant role in health risk calculations. Exposure and health risk analyses use the estimates of PRB, and using alternate assumptions about the background ozone concentration greatly affects the risk estimates. The use of the GEOS-CHEM model to predict PRB rather than monitoring data led to a decrease in PRB from 40 ppb to the new values of 15 to 35 ppb. The result of this decrease in PRB is that U.S. sources will be required to reduce emissions further to compensate for emissions originating elsewhere in North America. CASAC addressed PRB at its meeting on August 24-25, 2006 when it reviewed the Second Draft of the Staff Paper. In its October 24, 2006 letter (Henderson, 2006), CASAC wrote: “The section on policy-relevant background (2.7) continues to have problems. Although the section briefly cites the results of comparison of different models and measurements, it does not adequately address the uncertainties of the global GEOS-CHEM model, and how these uncertainties are reflected in the health risk analysis. It is important to know how the PRB is related to the considered primary ozone standard and what uncertainties there are in the risk attributed to controllable sources.” CASAC again addressed the PRB issue in its letter of March 26, 2007. In that letter CASAC pointed out: “The Final Ozone Staff Paper does not provide a sufficient base of evidence from the peer-reviewed literature to suggest that the current approach to determining a PRB is the best method to make this estimation.”

The revision to PRB seems, also, to ignore monitoring data that show ozone levels above the 35 ppb level in locations and/or at times in which photochemically-produced ozone is less important than contributions from stratospherically produced ozone. According to Chapter 3 of the 2006 Air Quality Criteria for Ozone and Related Photochemical Oxidants, monitors at relatively remote, clean sites where the maximum hourly average concentrations of ozone are low showed the 8-hour daily maximum ozone concentrations to be near the 70 ppb level, well above the 35 ppb level assumed for natural background. In 1999, the 8-hour daily maximum concentration of ozone at Yellowstone National Park was 78 ppb, which occurred on March 25<sup>th</sup>, during which time photochemically-produced ozone is much less important than natural stratospheric contributions. For many of the clean sites, more than half of the 8-hour daily maximum concentrations are above 35 ppb. Furthermore, recent monitoring off the coast of California has registered ozone levels above 60 ppb as a result of stratospherically produced ozone and emissions from developing economies in Asia rather than US contributions to ozone precursors. Based on these facts, **CLA contends that EPA’s estimates of PRB ozone are too low and, as such, EPA’s risk exposure estimates are biased.** Therefore, the proposed primary standard is more restrictive than is warranted by the science and should remain unchanged at this time.

## Secondary Standard

The proposed changes to the secondary standard for ozone would alter the standard from an eight hour standard (currently equivalent to the primary standard) to a cumulative, seasonal standard in which hourly concentrations are weighted cumulatively over a 12 hour period. This standard is commonly called W126 and uses a sigmoidal weighting function to assign weights to each hourly concentration during the daylight period. EPA has proposed a standard of 7 to 15 ppm-hours for the purpose of protecting vegetated and forested ecosystems from adverse ozone-related impacts, which would bring between 200 and 400 counties into non-attainment for the proposed secondary standard (fig. 3). **CLA opposes the use of the proposed cumulative secondary standard.**



**Figure 3. Counties with monitors violating the proposed ground-level ozone secondary standard of 7 to 15 ppm-hours based on 2006-2008 monitoring data (Jackson Kelly PLLC, 2010).**

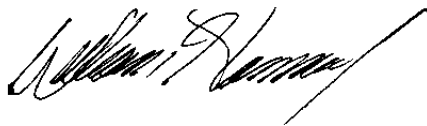
The proposed W126 standard has not been demonstrated to have biological association or mechanistic meaning outside of chamber exposure experiments. In fact, a peer-reviewed study (Percy et al., 2009) published in June 2009, prior to the September 2009 EPA Provisional Statement and the January 10, 2010 Provisional Ruling, demonstrated that the W126 over-estimates the negative effect of ozone and has no biological association with measured

response. In developing the W126 standard, EPA has relied on modeling and risk analysis information of tree responses that have not been validated by independent sets of data. Those modeling studies have been subject to assumptions where the associated uncertainties have been extrapolated throughout the assessment. Without ambient proof and field validation, the proposed W126 cumulative seasonal exposure index does not meet the scientific measure to be considered more than a statistical exercise in air quality assessment.

Furthermore, there is evidence that higher hourly average ozone concentrations, to which the W126 preferentially assigns a higher weight, are not as important as moderate to higher concentrations in eliciting negative crop biomass responses. Although W126 assigns greatest weight to highest ozone concentrations, diurnal ozone concentrations are lower when ozone uptake by plants is maximized and higher when uptake is minimized. In reality, EPA has not sufficiently supported scientific research regarding ambient ozone exposures and vegetation response for the past 15 years and has continued to rely on data largely collected in chamber studies prior to the 1990s. This failure to support such research has led to a proposed secondary standard that fails to recognize the natural respiratory behavior of plants and which has not been validated with a sufficient number of independent data sets.

The NAAQS for ozone should be sufficiently strict to protect the health and welfare of those in the United States. However, changes to the NAAQS should only be undertaken when a critical mass of new science warrants a change in the standards. CLA contends that there is insufficient new scientific information since the 2007 Staff Paper and 2008 Final Ruling to justify the implementation of a new primary standard for ozone and that EPA's revised estimates of PRB ozone, to which risk exposure estimates are quite sensitive, are unjustified and too low. Furthermore, CLA contends that proposed W126 secondary standard is flawed and will protect vegetated and forested ecosystems from adverse ozone-related impacts less effectively than is intended. Based on the aforementioned concerns, **CLA urges EPA to leave the current primary and secondary ozone standards unchanged** until such time as new scientific evidence warrants a change in the standard and uncertainties associated with exposure risk assessments are better characterized.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Hammerich', written in a cursive style.

William Hammerich, Chief Executive Officer  
Colorado Livestock Association  
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Greeley, Colorado 80631