



NATURAL RESOURCES DEFENSE COUNCIL

November 26, 2012

Dr. H. Christopher Frey
Chair, Clean Air Scientific Advisory Committee
Department of Civil, Construction, and Environmental Engineering
North Carolina State University
Raleigh, NC

Dr. Holly Stallworth
Designated Federal Officer (DFO)
Clean Air Scientific Advisory Committee
U.S. Environmental Protection Agency
Washington, DC

Re: CASAC Ozone review panel; Holmstead letter of 10/29/12

Dear Dr. Frey and Dr. Stallworth:

On behalf of the Natural Resources Defense Council, I am writing to request that this letter be provided to the members of the Clean Air Scientific Advisory Committee (CASAC) Ozone Review Panel. I am submitting this letter in response to a letter to the committee by Jeffrey Holmstead on October 29, 2012.

Mr. Holmstead's letter points to Section 109(d)(2)(C) of the Clean Air Act (CAA) to contend that CASAC should provide the Administrator with information about the costs of implementing the National Ambient Air Quality Standards (NAAQS) during the current standard-setting process. He then goes on to condemn EPA statements about the health benefits achieved by strengthening the ozone NAAQS, calling these statements "misleading" and a "mockery of the standards-setting practice."

I feel compelled to respond to these insupportable claims and the agenda that Mr. Holmstead urges upon CASAC. My concerns with Mr. Holmstead's contentions are summarized here:

- It is illogical and unwarranted to divert CASAC's scarce resources during the ozone standard-setting phase to implementation measures that have yet to be developed. This is especially true when EPA's current ozone review schedule

already will result in a violation of the CAA's deadline for reviewing and revising NAAQS.

- Reducing certain precursors to ozone pollution also reduce particulate matter. The benefits from these reductions are very real, and EPA has long quantified the co-benefits of these reductions. Further, the standalone benefits from strengthened ozone standards would be very significant

Mr. Holmstead's contentions are at odds with sound policy and practice, the NAAQS process, and Clean Air Act interpretations that EPA has followed for decades, including during the period in which Mr. Holmstead himself was the Assistant Administrator for Air and Radiation.

I respectfully ask CASAC to limit its attention to timely completion of the ozone standard-setting process, and to decline Mr. Holmstead's invitation to embark upon a time-consuming detour into implementation matters that will not arise for years. Further, I ask the committee to reject Mr. Holmstead's contentions regarding PM_{2.5} co-benefits, as they misstate both the health benefits from reducing ozone pollution and the EPA's approach to quantifying such benefits.

1) CASAC During the Standard-Setting Process: Focusing on Public Health to Recommend Standards that are Protective with an Adequate Margin of Safety.

EPA last revised the National Ambient Air Quality Standards for ozone pollution in 2008.¹ These revisions, however, were flatly inconsistent with the unanimous recommendations of CASAC and the protections required by the Clean Air Act. As CASAC members know well, the NAAQS program operates with two essential phases, where EPA first sets a national air pollution standard for a criteria pollutant, and then states, with the help of the agency, determine how that standard will be implemented and attained.

During this first phase, Section 109(b)(1) of the Clean Air Act requires that NAAQS be set at levels "requisite to protect the public health" while "allowing an adequate margin of safety." Congress vested CASAC with the important role of advising the Administrator on the level at which the NAAQS should be set. The language of section 109(b)(1) evinces a strong precautionary policy, where the margin of safety requirement directs "the Administrator to set air quality standards at pollution levels below those at which adverse health effects have been found or might be expected to occur in sensitive groups."² The margin of safety must protect not only against adverse effects that are uncertain, but also against those that science has not yet identified.

¹ Then-EPA Administrator Stephen Johnson set the primary eight-hour ozone standard at 75 parts per billion even though this committee had unanimously recommended setting an eight-hour standard of between 60 and 70 parts per billion. In 2011, EPA Administrator Lisa Jackson stated her "concerns that the 2008 standards were not legally defensible given the scientific evidence in the record for the rulemaking, the requirements of the Clean Air Act and the recommendations of the CASAC." Letter from the Hon. Lisa P. Jackson, Administrator, U.S. EPA, to the Hon. Thomas R. Carper, U.S. Senator (July 13, 2011) (*available at* http://www.eenews.net/assets/2012/11/06/document_gw_01.pdf).

² Revisions to the National Ambient Air Quality Standards for Particulate Matter, 52 Fed. Reg. 24,631, 24,641 (July 1, 1987).

A) EPA is Barred from Considering Costs in the Standard-Setting Process

This preeminent public health focus of the NAAQS is powerfully underscored by *American Trucking Association v. EPA*, 531 U.S. 457 (2001). In that decision, a unanimous Supreme Court determined that the Clean Air Act barred consideration of costs in setting the NAAQS. Justice Scalia, speaking for the court, stated that “[t]he text of §109(b), interpreted in its statutory and historical context and with appreciation for its importance to the CAA as a whole, unambiguously bars cost considerations from the NAAQS-setting process, and thus ends the matter for us as well as EPA.” *Id.* at 461.

The plain language of the Clean Air Act, affirmed by the forceful language of *American Trucking*, is unambiguous: neither EPA, nor, by extension, its independent body of scientific advisors, the CASAC, may consider costs in the standard-setting phase of the NAAQS process.

This standard-setting phase is distinct from the implementation phase (discussed below). Mr. Holmstead’s letter attempts to fold the implementation phase of the NAAQS process into the standard-setting process. Such an approach is potentially unlawful, but certainly illogical, a distraction from the standard-setting process, and at odds with consistent past practice by EPA and CASAC.

The standard-setting process is the phase in which CASAC is most heavily involved and currently engaged. Here, the committee reviews scientific literature on the health and welfare effects of the air pollutant at issue, solicits input from experts, and creates a number of working draft papers compiling this technical information. The process involves public input and considerable communication with EPA regarding the standards. EPA staff review the scientific literature and prepare an Integrated Science Assessment (the so-called “criteria document”) and other documents such as the Risk and Exposure Assessment and Policy Assessment. CASAC’s role is to review the draft documents -- to vet them.

B) Implementation Concerns are Inappropriate During the Standard-Setting Process

Mr. Holmstead’s letter states that CASAC should be considering the costs of future NAAQS implementation during the standard-setting process. The unprecedented role that he urges now on behalf of regulated industrial clients would actually interfere with CASAC’s responsibilities during the standard-setting process to provide timely health and scientific advice untainted by economic or political considerations. The consequences of the industry urgings surely would be to delay the standard-setting process as well.

Mr. Holmstead points to Clean Air Act section 109(d)(2)(C)(iii)’s language that the CASAC shall advise the Administrator on issues relating to “public health, welfare, social, economic or energy effects which *may result from various strategies for attainment or maintenance of such national ambient air quality standards*”(emphasis added). The very language of this section highlights its inapplicability to the standard-setting process. Section 109(b)(2)(C)(iii)’s statutory language specifically contemplates advice on *implementation* of the NAAQS *once the standards are already set*.

CASAC does not have any actual implementation measures in front of them now. EPA has yet to adopt, or even propose, revised ozone NAAQS. And states naturally have failed to develop implementation strategies for undeveloped standards. As such, advice on strategies relating to how states might address and attain unpromulgated standards would be premature and an unproductive use of the committee's time.

Lastly, Congress plainly did not allow section 109(d)(2)(C)'s advisory language to override the section 109(d)(1) 5-year statutory deadline for EPA to complete review and revision of NAAQS. EPA already has said that it does not expect to complete the pending ozone review process until some time after July 2014, meaning that it will already violate a statutory deadline by completing its ozone review more than 5 years after the last revision in 2008. Mr. Holmstead's entreaty to consider implementation impacts out of order and during the standard-setting stage would only worsen that delay and exacerbate the statutory violation.

2) Ozone and PM_{2.5}: All Benefits Should be Taken Into Account

As a final matter, we must also respectfully disagree with Mr. Holmstead's contention that there is something untoward about EPA's consideration of co-benefits achieved by the ozone NAAQS from reducing particulate matter of 2.5 microns or less in diameter.

A) The Benefits to Human Health from Reducing Ozone Pollution Alone are Substantial

Mr. Holmstead asserts that the benefits of lowering the ozone standard "come almost entirely from reducing concentrations of PM_{2.5}." This is not true. Though co-benefits from cutting PM_{2.5} are greater for a number of endpoints, the public health benefits from lowering the ozone standard from 75 parts per billion to 65 parts per billion are in and of themselves quite substantial. Based on EPA estimates, setting the ozone NAAQS at 65 ppb, for example, would mean approximately 2,500 fewer infants sent to the emergency room with respiratory problems, close to one million fewer lost days of school due to respiratory problems, and up to 1,700 additional lives saved.³ These ozone-specific health benefits will mean significant improvements in the lives of many Americans who live with unhealthy levels of air pollution every day.

B) It has Long Been EPA's Practice to Include Co-Benefits from Reduced PM_{2.5} Pollution in Ozone NAAQS' Regulatory Impact Analyses

Rather than being "misleading" as Mr. Holmstead asserts, EPA's co-benefits analysis is providing information in line with its decades-long practice of attempting to inform the public about its air pollution exposure. It would be perverse to deny or ignore the total benefits that ozone standards achieve by reducing multiple types of air pollution. It is only logical and appropriate, accordingly, to calculate the total health benefits for Americans, as EPA has done, from reducing *all* these pollutants.

³ U.S. EPA, Summary of the updated Regulatory Impact Analysis (RIA) for the Reconsideration of the 2008 Ozone National Ambient Air Quality Standard (NAAQS), S3-11 *available at* http://www.epa.gov/tneacas1/regdata/RIAs/s1-supplemental_analysis_summary11-5-09.pdf.

In fact, the Bush Administration used the identical approach when analyzing its 2008 ozone standards. The Final 2008 Ozone NAAQS Regulatory Impact Analysis (RIA) noted, for example, that “[t]he total PM_{2.5} benefits of attaining [ozone standards at] 0.065 ppm, 0.075 ppm and 0.079 ppm are \$11 billion, \$3.6 billion and \$2 billion respectively.”⁴ Indeed, that 2008 ozone RIA devoted an entire chapter covering 100 pages to discussing the co-benefits of a lower ozone standard attributable to reducing concentrations of PM_{2.5}.⁵

Mr. Holmstead’s approach would ignore actual pollution reductions, as well as real co-benefits and indirect benefits that *will* be achieved by a more protective ozone standard. But there is nothing in Executive Order 12866, the source of authority for regulatory impact analyses, that compels or even supports this artificially constrained approach to informative benefit-cost analysis.⁶ Indeed, it has long been EPA and Office of Management and Budget practice, including again during Mr. Holmstead’s tenure heading the agency’s air office, to consider and calculate a full range of benefits from reducing multiple air pollutants under statutory programs focused on one pollutant (like the NAAQS) or a group of pollutants (like hazardous air pollutants).⁷ Cost-benefit analyses provided in RIAs are not considered when setting standards (see *American Trucking*), but instead attempt to provide estimations of the real-world impacts of the standards. Reduced PM_{2.5} is one such impact and it should not be ignored.

C) Health Benefits from PM_{2.5} Below the Level of the NAAQS are Real and Should be Counted

Mr. Holmstead’s letter deems it “even more troubling” that EPA recognizes the significant health benefits from reducing PM_{2.5} below the level of the NAAQS for PM_{2.5}. What his letter fails to disclose is that the Bush EPA air program under his direction followed the same practice for air pollution initiatives it developed and promoted.⁸ Specifically, when the Bush administration promoted its so-called Clear Skies legislation in Congress, 80 percent of the

⁴ U.S. EPA, Final Ozone NAAQS Regulatory Impact Analysis, EPA-452/R-08-003 March 2008 available at http://www.epa.gov/ttnecas1/regdata/RIAs/452_R_08_003.pdf. (“Final Ozone RIA”).

⁵ *Id.* at chapter 6.

⁶ Executive Order 12866 (Sept. 30, 1993), available at http://www.reginfo.gov/public/jsp/Utilities/EO_12866.pdf.

⁷ See, e.g., these regulatory impact analyses by the Bush administration EPA calculating the co-benefits from reducing PM_{2.5} and NO_x emissions under Clean Air Act section 112 standards covering hazardous air pollutants: <http://www.epa.gov/ttnecas1/regdata/RIAs/RICERIA-finalrule.pdf> (ch.8); <http://www.epa.gov/ttnecas1/regdata/RIAs/indboilprocheatfinalruleRIA.pdf> (ch.10); <http://www.epa.gov/ttnecas1/regdata/RIAs/pcwp-finalruleRIA.pdf> (ch.3); & http://www.epa.gov/ttnecas1/regdata/RIAs/stationary_si.pdf (ch.6).

⁸ The Clear Skies legislation was introduced when the annual PM_{2.5} standard was 15 µg/m³. The Bush administration’s analytic addendum to Clear Skies examined the bill’s PM_{2.5} co-benefits and found that “[t]he threshold analysis indicates that approximately 80 percent of the premature mortality related benefits are due to changes in PM_{2.5} concentrations occurring above 10 µg/m³ and around 10 percent are due to changes above 15 µg/m³,” U.S. EPA, *Technical Addendum: Methodologies for the Benefit Analysis of the Clear Skies Act of 2003* (Sept. 2003), available at http://www.epa.gov/air/clearskies/tech_addendum.pdf (last visited November 26, 2012).

premature mortality-related PM_{2.5} benefits touted by EPA when Mr. Holmstead headed its air office occurred at or below the NAAQS level of 15 µg/m³, down to 10 µg/m³.⁹ The practice of recognizing health benefits from reduced pollution concentrations below NAAQS levels was not troubling then, and it is not “even more troubling” now when followed by the present administration.

And the reason for recognizing these health benefits below NAAQS levels is clear: fine particulate matter is considered a “non-threshold pollutant.” As EPA Assistant Administrator for Air & Radiation Gina McCarthy indicated in a letter to the House Energy and Commerce Committee, the “scientific literature provides no evidence of a threshold below which health effects associated with exposure to fine particles – including premature death – would *not* occur.”¹⁰ Among other health hazards, exposure to fine particle pollution can cause premature death, heart attacks, strokes, and “increased hospital admissions and emergency department visits for respiratory effects, such as asthma attacks, as well as increased respiratory symptoms, such as coughing, wheezing and shortness of breath.”¹¹

Both the current and previous administrations have employed these co-benefit approaches because they reflect what the science shows. Reducing ozone precursors like NO_x and volatile organic compounds (VOCs) will necessarily reduce PM_{2.5} emissions.¹² The technologies and pollution control strategies that reduce these pollutants will necessarily reduce PM_{2.5}. The 2008 Ozone NAAQS RIA reflects such an understanding, noting that “PM co-benefits presented in this chapter are incremental to the PM benefits estimated in the 2006 PM NAAQS RIA and reflect the PM benefits from NO_x reductions associated with each ozone control strategy.”¹³ When attaining a health-based standard has the collateral benefit of reducing other types of dangerous air pollution, there is no defensible reason to ignore or hide these reductions. These PM_{2.5} reductions happen because of the chemical makeup of the pollutants at issue. Recognizing these benefits simply affirms the science behind the air pollution, and EPA should be lauded for responsibly recognizing the full range of benefits.

Conclusion

The Clean Air Act and the Supreme Court mandate that EPA and CASAC disregard costs when establishing and revising health-based NAAQS. The practice of including PM_{2.5} co-

⁹ U.S. EPA, EPA-452/R-05-002, *Regulatory Impact Analysis for the Final Clean Air Interstate Rule* (Mar. 2005) at 1-8, available at <http://www.epa.gov/cair/pdfs/finaltech08.pdf> (last visited November 26, 2012).

¹⁰ Letter from Gina McCarthy, Assistant Administrator, EPA, to the Hon. Fred Upton, Chairman, Committee on Energy and Commerce, Feb. 3, 2012 available at <http://switchboard.nrdc.org/blogs/jwalke/2-3-12%20EPA%20letter%20to%20Upton%20re%20PM%20benefits.pdf> (last visited November 26, 2012).

¹¹ *Id.*

¹² See, e.g., n. 4, Final Ozone RIA, at 6-2 (“In addition to the direct benefits from reducing ozone, attainment of the standards would likely result in additional health and welfare benefits because reducing the ozone precursors NO_x and VOC will also reduce PM_{2.5}”).

¹³ Final Ozone RIA, at 6-4.

benefits in EPA cost-benefit projections in regulatory impact analyses is an appropriate and longstanding practice employed across different administrations. Finally, I respectfully submit that the time and resources available to CASAC during the standard-setting review process are best reserved for setting protective health standards, especially when EPA is already indicating that it will miss the statutory deadline for review and revision.

Thank you for your work on these important health-based standards. Today's ozone standards are insufficient to protect public health, and I look forward to the committee's work to assist EPA in ensuring that its revised standards protect public health with an adequate margin of safety.

Sincerely,

John Walke

Clean Air Director, NRDC