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Testimony of Joyce E. Epps
on behalf of the National Association of Clean Air Agencies
on the U.S. Environmental Protection Agency's Proposal to
Revise the Ozone National Ambient Air Quality Standards (NAAQS)
(July 11, 2007) 72 *Federal Register* 37818
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Good morning. My name is Joyce E. Epps and I am Director of the Bureau of Air Quality at the Pennsylvania Department of Environmental Protection. I am also a member of the National Association of Clean Air Agencies' (NACAA) Board of Directors. On behalf of NACAA—which is an association of air pollution control agencies in 54 states and territories and over 165 metropolitan areas across the country—I am testifying today on EPA's proposed revisions to the ozone National Ambient Air Quality Standards (NAAQS).

Primary NAAQS

NACAA commends EPA for proposing to set a more stringent primary ozone NAAQS to protect public health. Ozone exposure causes premature mortality in people with heart and lung disease. It also reduces lung function, aggravating asthma and other respiratory conditions, and increases the susceptibility of lungs to infection, leading to increased use of medicine among asthmatics and more frequent doctor visits, school absences, emergency room visits and hospital admissions. People with respiratory and heart problems, children and the elderly, and even healthy adults experience negative health effects when exposed to ozone, and recent evidence shows that the adverse health effects occur at concentrations lower than the current standard. Accordingly, although we appreciate EPA's proposed action because it recognizes the importance of tightening the standard, we have some significant concerns with the agency's proposal.

EPA's Congressionally chartered body of independent scientific advisers, the Clean Air Scientific Advisory Committee (CASAC), unanimously concluded that the primary ozone standard needs to be "substantially reduced" and recommended strengthening the primary ozone NAAQS to a level within the range of 0.060 to 0.070 parts per million (ppm).[1] To support its recommendation, CASAC pointed out that "[s]everal new single-city studies and large multi-city studies designed specifically to examine the effects of ozone and other pollutants on both morbidity and mortality have provided more evidence for adverse health effects at concentrations lower than the current standard."[2] In addition, CASAC also noted that controlled clinical studies of healthy adult volunteers showed adverse lung function effects in some individuals at 0.06 ppm, and "people with asthma, and particularly children, have been

[1] Dr. Rogene Henderson, CASAC Chair, Letter to the Honorable Stephen L. Johnson regarding CASAC's Peer Review of the Agency's 2nd Draft Staff Paper, (Oct. 24, 2006) at 2.
[2] Id. at 3.

found to be more sensitive and to experience larger decrements in lung function in response to ozone exposures than would healthy volunteers."[3] CASAC also pointed to the EPA staff paper, in which agency staff concluded that "[b]eneficial effects in terms of reduction of adverse health effects were calculated to occur at the lowest concentration considered (*i.e.*, 0.064 ppm)."[4]

Nevertheless, EPA's proposed range of levels—0.070 to 0.075 ppm—falls outside the range recommended unanimously by CASAC, coinciding only at CASAC's upper bound. In determining the levels "requisite" to protect public health and welfare, NACAA strongly believes that EPA should follow the science—the learned, informed advice of CASAC.

In addition, we question why EPA is considering retaining the current standard of 0.084 ppm when, as CASAC points out, a large body of scientific evidence "clearly demonstrates adverse health effects" at the current standard and "[r]etaining this standard would continue to put large numbers of individuals at risk for respiratory effects and/or significant impact on quality of life including asthma exacerbations, emergency room visits, hospital admissions and mortality."[5] CASAC said it best: "there is no scientific justification for retaining the current primary 8-[hour] NAAQS."[6]

Also, EPA does not appear to be according CASAC's recommendations the weight they deserve, given CASAC's statutorily defined role in the NAAQS review process. CASAC is specifically charged in section 109 of the Clean Air Act with giving advice to the Administrator on the setting and revising of NAAQS. Accordingly, where EPA's proposal differs from CASAC's recommendations, EPA needs to specifically indicate why it chose not to follow the advice of its independent scientific advisors. For example, what did EPA see in the scientific data that justified only considering the very upper bound of CASAC's recommendation for the primary ozone NAAQS?

Secondary NAAQS

Turning now to the secondary ozone standard to protect public welfare, NACAA is pleased that EPA has proposed a distinct, cumulative seasonal standard. Ozone inhibits photosynthesis, inhibits root growth, negatively affects tree growth, causes visible damage to leaves and reduces agricultural crop yields. A cumulative seasonal standard more directly correlates with the exposure of plants to ozone, since plants are exposed to ozone during the entire ozone season. As EPA notes in its proposal, "cumulative, seasonal [ozone] exposures were most strongly associated with observed vegetation response."[7]

CASAC called for a secondary standard "distinctly different from the primary standard in averaging time, level and form."[8] CASAC supported using a cumulative seasonal indicator

[3] Id at pp. 3-4.
[4] Id at 4.
[5] Id. at 5.
[6] Id. at 1.
[7] EPA, "National Ambient Air Quality Standards for Ozone: Proposed Rule," 79 *Federal Register* 37818 (July 11, 2007), at p. 37883.
[8] Henderson, *supra* note 1, at 6.

called W126 that extends over the three-month growing season and counts ozone concentrations over at least the 12 daylight hours, and it recommended that EPA propose a level within the range of 7 to 15 ppm-hours (ppm-hrs).[9]

As with the primary standard, EPA's proposal is a step in the right direction but falls short of what science indicates is needed. EPA proposed promulgating a distinct, cumulative seasonal secondary standard using the W126 formulation, but EPA's proposed range for a level extends outside CASAC's range—up to 21 ppm-hours. CASAC noted that adverse effects on vegetation have been documented in areas with W126 levels below 21 ppm-hours and that W126 ranges "well below" 18.75 ppm-hr "were recommended for protecting various managed and unmanaged crops and tree seedlings in the 1997 workshop [of ecological experts] on secondary ozone standards"[10] convened by EPA.

In addition, we are troubled that EPA proposed as an alternative making the secondary standard identical to the primary standard, despite agreement among CASAC, the ecological experts convened at the 1997 workshop and EPA staff on the need for a distinct, cumulative, seasonal secondary standard to protect vegetation. In a letter to EPA, CASAC noted that adverse effects on vegetation have been observed in areas that are below the level of the current ozone standards and unanimously agreed that "it is *not* appropriate to try to protect vegetation from the substantial, known or anticipated, direct and/or indirect, adverse effects of ambient ozone by continuing to promulgate identical primary and secondary standards for ozone."[11]

Finally, with respect to both the primary and secondary standards, to the extent that new peer-reviewed scientific studies have been published in scientific journals since EPA proposed this rule, we encourage the agency—time permitting under the court-ordered deadline—to review these studies during its deliberation of a final rule.

Implementation

We are further concerned that EPA in this proposal, as in the particulate matter NAAQS, is mixing in implementation issues in a rule setting a health-based standard. The NAAQS are set at a level to protect public health with an adequate margin of safety; how one *meets* the NAAQS is obviously important but a *separate* issue from what the standard should be. For example, EPA in its proposal notes that provisions of the Energy Policy Act of 2005 requiring increased use of renewable fuels will have an impact on levels of ozone across the country and requests comment on the extent that EPA in this rulemaking may consider the impacts of this renewable fuels mandate on ozone compliance. The answer is unequivocal: EPA may not. Clearly, the impact of increased renewable fuels on ozone is an important issue

[9] Dr. Rogene Henderson, CASAC Chair, Letter to the Honorable Stephen L. Johnson regarding CASAC's Review of the Agency's Final Ozone Staff Paper, (Mar. 26, 2007) at 3.
[10] Henderson, *supra* note 1, at p. 6. EPA held a workshop of ecological experts in 1997 to determine consensus-based estimates for ranges of a cumulative seasonal standard that would protect vegetation; at the time, an alternative cumulative form called SUM06 was being considered and experts agreed on the need for seasonal SUM06 levels well below 25 ppm-hr. Approximately equivalent levels of W126 would be about 75% of SUM06, so a W126 of 18.75 ppm-hr would be approximately equivalent to a SUM06 of 25 ppm-hr .
[11] Id. at 7 (emphasis in the original).

that needs to be addressed, but not in a rulemaking focused solely on determining what level of ozone is protective of public health.

EPA needs to erect a strong firewall between standard-setting and implementation issues. The Supreme Court in *Whitman v. American Trucking Associations* was very clear that EPA may not consider the cost of implementation in setting the NAAQS, because the sections of the statute providing for the setting and revising of the NAAQS do not mention cost as a factor, and cost is "*both* so indirectly related to public health *and* so full of potential for canceling the conclusions drawn from direct health effects that it [(cost)] would surely have been expressly mentioned [in these sections] had Congress meant it to be considered."[12] The benefits of setting a strong standard are harder to measure, in that one cannot precisely identify whose life was saved, whose child had fewer asthma attacks and which trees grew faster and stronger because of less ozone pollution. The costs, on the other hand, can be more easily tallied, and once considerations of implementation bleed into standard-setting, then the human propensity for avoiding pain makes it very likely that some stakeholders will clamor for a weaker standard to avoid those costs. EPA cannot blur the line between standard-setting and implementation; the agency must hew to its statutory mandate. It is instructive to note that CASAC recognized that its recommendation of lowering the current primary standard would likely result in "a large portion of the U.S being in nonattainment," yet CASAC said, "we take very seriously the statutory mandate in the Clean Air Act not only for the Administrator to establish, but also for the CASAC to recommend to the Administrator, a primary standard that provides for an 'adequate margin of safety … requisite to protect the public health.'"[13]

Let me close by saying that, while EPA should not conflate implementation and standard-setting issues in this rulemaking, whatever decision EPA makes on the level and form of the primary and secondary NAAQS will have a profound impact on the work of state and local clean air agencies. EPA must recognize this, not in setting the NAAQS, but in timely future rulemakings and appropriations requests—by requesting sufficient funds for state and local clean air agencies to carry out work associated with meeting the new NAAQS, providing sufficient infrastructure (such as monitors), issuing timely implementation guidance and adopting national rules that address major sources of ozone precursors. Accordingly, it will be imperative for EPA to work in close partnership with state and local clean air agencies at the appropriate time to address implementation issues and achieve the ultimate goal of public health protection.

Thank you for this opportunity to testify.

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[12] *Whitman v. American Trucking Associations, Inc.*, Supreme Court Opinion No. 99-1257 (Feb. 27, 2001), at 9.
[13] Henderson, *supra* note 1, at 7.