

**Comments of the
National Association of Clean Air Agencies (NACAA)
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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October 9, 2007

The National Association of Clean Air Agencies (NACAA) offers the following comments on the U.S. Environmental Protection Agency's (EPA's) Proposed Rule to Revise the National Ambient Air Quality Standards (NAAQS) for Ozone ("Ozone NAAQS Proposal"), as published in the *Federal Register* on July 11, 2007 (72 *Federal Register* 37818). NACAA is an association of air pollution control agencies in 53 states and territories and over 165 metropolitan areas across the country.

As the Clean Air Act provides, state and local air agencies are primarily responsible for preventing and controlling air pollution in order to protect our citizens' health and welfare.¹ These agencies are charged with devising plans to ensure that the air in states and localities is clean and healthy to breathe; thus, any time EPA proposes to revise air quality standards, we pay close attention.

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

¹ Section 101(a)(3).

strengthening the primary ozone NAAQS to a level within the range of 0.060 to 0.070 parts per million (ppm).² 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.”³ 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 found to be more sensitive and to experience larger decrements in lung function in response to ozone exposures than would healthy volunteers.”⁴ 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).”⁵

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, NACAA questions 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.”⁶ CASAC said it best: “there is no scientific justification for retaining the current primary 8-[hour] NAAQS.”⁷

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.

EPA provides an explanation in its proposal for why its proposed range is not lower than 0.070 ppm and why it is not higher than 0.075ppm.⁸ However, it does not fully explain why its proposed range goes *up to* 0.075 ppm, when CASAC’s upper bound

² 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.

³ *Id.* at 3.

⁴ *Id.* at 3-4.

⁵ *Id.* at 4.

⁶ *Id.* at 5.

⁷ *Id.* at 1.

⁸ EPA’s Proposed Rule to Revise the National Ambient Air Quality Standards (NAAQS) for Ozone, 72 *Federal Register* 37818 (July 11, 2007) at 37880.

was 0.070 ppm. CASAC cites “overwhelming scientific evidence” for its recommendation that the standard be no greater than 0.070 ppm.⁹ Why then did EPA propose any level higher than 0.070 ppm?

In addition, EPA does not fully address some of CASAC’s specific scientific judgments. For example, in selecting its range of 0.070-0.075 ppm, EPA relies relatively heavily on its exposure assessment, which the agency says shows that a “standard within the 0.070 to 0.075 ppm range would thus substantially reduce exposures of concern by about 90 to 80 percent, respectively, from those estimated to occur upon just meeting the current standard.”¹⁰ But EPA does not address CASAC’s concern that “[t]here is an underestimation [in the exposure assessment] of the affected population when one considers only twelve urban “Metropolitan Statistical Areas” (MSAs).”¹¹ EPA also states that the “most certain evidence of adverse health effects from exposure to [ozone] comes from clinical studies,”¹² yet the agency discounts recently reported clinical studies of healthy adult human volunteers showing adverse lung function effects in some individuals at 0.060 ppm, saying “this evidence is too limited to support a primary focus at this level.”¹³ CASAC, on the other hand, found these recent studies to be important, especially since people with asthma, particularly children, “have been found to be more sensitive and to experience larger decrements in lung function in response to ozone exposures than would healthy volunteers.”¹⁴

Secondary NAAQS

With respect to the secondary ozone standard, 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.”¹⁵

CASAC called for a secondary standard “distinctly different from the primary standard in averaging time, level and form.”¹⁶ CASAC supported using a cumulative seasonal indicator 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 7.5 to 15 ppm-hours (ppm-hrs).¹⁷

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, (March 26, 2007) at 2.

¹⁰ Ozone NAAQS Proposal at 37880.

¹¹ Henderson letter of March 26, 2007, *supra* note 9, at 2.

¹² Ozone NAAQS Proposal at 37878.

¹³ *Id.*

¹⁴ Henderson letter of October 24, 2006, *supra* note 2, at 4.

¹⁵ Ozone NAAQS Proposal at 37883.

¹⁶ Henderson letter of October 24, 2006, *supra* note 2, at 6.

¹⁷ Henderson letter of March 26, 2007, *supra* note 9, at 3.

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”¹⁸ convened by EPA. (In fact, the ecological experts recommended a range of W126 levels from 5 ppm-hr up to 14 ppm-hr, even lower than CASAC's range of 7-15 ppm-hr.¹⁹) In the last review, an upper bound of 21 ppm-hr was considered and rejected “as not being a substantial improvement over the 8-hour maximum of 0.084 ppm.”²⁰ We question why EPA would consider adopting a secondary standard at a level rejected 10 years ago as not being an improvement over the primary standard adopted 10 years ago. Therefore, consistent with the recommendations of CASAC and ecological experts, the range considered for the W126 secondary standard should be no higher than 15 ppm-hrs.

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 1996 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 register ozone levels below 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.”²¹

EPA's proposal also cites strong scientific evidence for a distinct, cumulative seasonal standard. Harm to foliage occurred even in areas recording concentrations of ozone that would meet EPA's proposed range for a primary ozone NAAQS:

Of the counties that met an 8-hour level of 0.07 ppm in those years [(2001-2004)], 11 to 30 percent still had incidence of visible foliar injury. The magnitude of these percentages suggests that phytotoxic exposures sufficient to induce visible foliar injury would still occur in many areas

¹⁸ Henderson letter of October 24, 2006, *supra* note 2, at 6. EPA held a workshop of ecological experts in 1996 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. While CASAC refers to a 1997 workshop, the workshop was held in 1996 and its results were published in 1997. Ozone NAAQS Proposal at 37902.

¹⁹ Ozone NAAQS Proposal at 37902.

²⁰ Henderson letter of March 26, 2007, *supra* note 9, at C-25.

²¹ Henderson letter of October 24, 2006, *supra* note 2, at 7 (emphasis in the original).

after meeting the level of the current secondary standard or alternative 0.07 ppm 8-hour standard.²²

While setting a more stringent primary standard would be beneficial to plants, the agency's proposal recognizes that areas meeting a primary standard can still experience wide variations in cumulative, seasonal ozone totals, thus underscoring the need for a distinct standard to protect public welfare:

This lack of a consistent degree of overlap between the two forms in different air quality years demonstrates that annual vegetation would be expected to receive widely differing degrees of protection from cumulative seasonal exposures in some areas from year to year, even when the 3-year average of the 8-hour form was consistently met.²³

And this is especially true for the nation's parks and forests:

The Staff Paper recognizes, however, that some areas meeting a 0.070 ppm 8-hour standard could continue to have elevated seasonal exposures, including forested park lands and other natural areas, and Class I areas which are federally mandated to preserve certain air quality related values. This is especially important in the high elevation forests in the Western U.S. where there are few [ozone] monitors. This is because the air quality patterns in remote areas can result in relatively low 8-hour averages while still experiencing relatively high cumulative exposures.²⁴

Accordingly, given CASAC's explicit statement about the inappropriateness of promulgating identical primary and secondary standards and the evidence that such an approach does not adequately protect public welfare, NACAA is troubled with EPA's proposal.

Air Quality Index

The Air Quality Index (AQI) is a risk communication tool developed by EPA to keep members of the general public informed about their local air quality and to help them make informed decisions about their exposure to air pollutants. Air quality is measured by monitors that record the concentrations of major pollutants each day at thousands of locations across the country. Those raw measurements are then converted into AQI values using standard formulas developed by EPA. The effectiveness of the AQI as a public health tool will be undermined if EPA undertakes regulatory changes to the ozone NAAQS without simultaneously revising the AQI. Therefore, NACAA supports EPA's proposal to revise the AQI at the same time that it finalizes the new ozone NAAQS to better protect public health.

²² Ozone NAAQS Proposal at 37893-37894.

²³ Id. at 37893.

²⁴ Id. at 37892.

Implementation Issues Improperly Included in Proposal

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

As with the particulate matter NAAQS, the agency in the preamble to the proposal addresses an issue—what constitutes reasonably available control measures (RACM) for meeting the standard—that unequivocally should be covered in an implementation rule or guidance and not in a rule setting the NAAQS. The agency says it

anticipates that certain USDA-approved conservation systems and activities that reduce agricultural emissions of [nitrogen oxides] and [volatile organic compounds] may be able to satisfy the requirements for applicable sources to implement reasonably available control measures for purposes of attaining the primary and secondary [ozone] NAAQS.²⁵

Guidance about which measures may be considered RACM is something EPA provides, in consultation with state and local clean air agencies, *after* a standard has been promulgated. Furthermore, EPA did not consult with NACAA about the appropriateness of this determination, which is at odds with the partnership between EPA and state and local clean air agencies in implementing the Clean Air Act. And, in any event, RACM determinations—even “anticipations”—are not appropriate in a rule setting the NAAQS.

The agency also requests comment on whether it may consider projected public health gains from meeting the current standard as a health-based criterion for its decisionmaking in revising the standard.²⁶ NACAA is unsure of what the agency’s intent is here. If science shows that a 0.084 ppm standard is inadequate to protect public health, how are the public health gains from meeting that “inadequate” standard relevant to setting a more stringent standard? It is true that the public benefits from lowering ozone levels to 0.084 ppm in areas where ozone levels are higher than that, but that does not mean that 0.084 ppm is sufficiently protective of public health or that those incremental gains means EPA is justified in setting a less protective standard. Our members do face

²⁵ Ozone NAAQS proposal at 37821.

²⁶ *Id.* at 37881.

challenges in meeting the current ozone standard (and will face additional challenges meeting a stricter standard), but we are unclear what relevance this has to setting a level of ozone that 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.”²⁷ 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.’”²⁸

Issues EPA Will Need to Address After Setting the Ozone NAAQS

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.

Funding

EPA should request sufficient additional funds for state and local air pollution control agencies to carry out work associated with meeting the new NAAQS. Currently, federal grants fall far short of what is needed to support our members’ work to meet the existing standards and carry out their other air quality responsibilities. In recent years, federal grants for state and local air programs have amounted to only about one-third of what they should be and the latest budget requests have called for additional cuts. Tighter ozone standards mean existing and new nonattainment areas will need to identify

²⁷ *Whitman v. American Trucking Associations, Inc.*, Supreme Court Opinion No. 99-1257 (Feb. 27, 2001), at 9.

²⁸ Henderson letter of October 24, 2006, *supra* note 2, at 7.

and adopt additional control measures, convene stakeholder processes to explain the implications of a nonattainment designation and seek input on control measures, prepare nonattainment State Implementation Plans (SIPs), and shepherd these SIPs through their administrative processes and EPA approval procedures, among other tasks.²⁹ All of these activities will require significant *additional* resources for state and local air agencies, above and beyond what is currently provided.

Timely Implementation Guidance

EPA also needs to issue timely implementation guidance so that states and localities are apprised early on of EPA expectations for SIPs. Many states require at least a year for a SIP to be approved to comply with the terms of their state-specific administrative procedures, before the SIP is even submitted to EPA. State and local air pollution control agencies, therefore, need guidance from EPA well before SIP deadlines.

National Rules Addressing Major Sources

Many sources contributing to ozone pollution in a nonattainment area may be outside the legal jurisdiction of state and local clean air agencies or be best regulated by a national rule that sets tight minimum emissions standards. Accordingly, EPA needs to adopt national rules that address major sources of ozone precursors in order to assist with attainment.

For example, there remain significant opportunities to reduce emissions of ozone and particulate matter precursors from electric generating units (EGUs), both in the East and the West. For this reason we were extremely disappointed that EPA's Regulatory Impact Analysis (RIA), in which EPA analyzed the costs and benefits of reducing pollution to meet alternative ozone standards, did not even examine the costs and benefits of further controlling EGUs.³⁰ EPA's rationale for not examining further controls on EGUs is the agency's assertion that "extensive reductions" have already been obtained from EGUs through the Clean Air Interstate Rule (CAIR) (which only applies in the East), the Clean Air Mercury Rule (CAMR) and the Clean Air Visibility Rule (CAVR).³¹ EPA's modeling in the RIA used the year 2020 as a projected attainment date for the new ozone standard. We fail to understand why EPA would not even consider that additional controls on EGU emissions could be warranted in the next 13 years. None of the rules EPA mentioned—neither CAIR nor CAMR nor CAVR—sets stringent enough requirements to reduce emissions of ozone precursors from EGUs in order to meet the *current* ozone standard, let alone a tighter standard.³² In addition, clearly during the next

²⁹ The impact on the monitoring network and the need to fund additional monitors is addressed below.

³⁰ EPA, Regulatory Impact Analysis of the Proposed Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone (July 2007) (EPA-452/R-07-008), at 3-6.

³¹ *Id.*

³² EPA established EGU emissions reduction budgets for states in CAIR at levels sufficient to reduce upwind states' "significant contribution" to downwind states' nonattainment (i.e., interstate transport of EGU emissions). These budgets did not consider what EGU emissions reductions would be needed to

13 years air pollution control technology will have advanced, so EPA is not justified in concluding that further controls on EGUs would not be available or cost-effective.

Monitoring—Primary Ozone NAAQS

EPA's revision of the primary ozone NAAQS will be seriously compromised—and its new health protections will not be realized in a nationally consistent way—unless it is supported by accurate data establishing current ambient levels of ozone. Such information is the bedrock of attainment and nonattainment designations under a revised standard, and can only be provided by a robust nationwide ozone monitoring network. The proposed rule, however, ignores the needs that states and localities will have for additional monitors to measure ozone levels in currently under-monitored areas and, in particular, in unmonitored areas that have populations under 350,000. Unless this latter deficiency is corrected in the final rule, the health benefits of EPA's ozone NAAQS revision will likely be limited to those living in Metropolitan Statistical Areas (MSAs) having populations of more than 350,000.³³

The proposed rule states that there are currently about 1100 ozone monitors now operating in MSAs.³⁴ According to the proposal, at a final NAAQS of 0.070 ppm, about 70 MSAs would be affected, with most changing from no required monitors to one, or from one to two. The agency concludes, “[b]ecause most of these areas already are operating at least as many monitors as the possible new requirement, the number of monitors which would need to be initiated...would be only about five monitors [nationwide].³⁵

NACAA does not agree that the ozone monitoring network will need only minimal tweaking in order to provide adequate data to compare to a new health-based standard. Currently, only 639 of the nation's 3,000 counties have ozone monitors in place.³⁶ EPA's maps show that 533 of these counties will violate a proposed standard of 0.070, or 83 percent of the monitored counties. Given such a high projected nonattainment rate for the monitored counties, how can EPA conclude that the remaining 2,400 unmonitored counties will be in attainment? Yet, unless EPA's current ozone monitoring requirements are changed, the vast majority of the nation's counties will remain unmonitored.

ensure that *intrastate* EGU emissions were controlled sufficiently to achieve attainment. In addition, since CAIR is a cap-and-trade scheme, there is no requirement that an EGU next to or in a nonattainment area reduce its emissions. CAMR deals with mercury, not ozone. CAVR was designed to reduce emissions contributing to visibility pollution and not to achieve attainment with the health-based ozone standard.

³³ In 2006, NACAA opposed the proposed (and subsequently dropped) population-based PM_{10-2.5} coarse monitoring network, which required no monitors for cities with fewer than 100,000 people. Similarly, the association advocates that EPA revisit the population-based ozone network design criteria of 40 CFR Part 58, Appendix D, Table D-2, which now require no ozone monitors for MSAs under 350,000 that have no design values and are estimated to be less than 85 percent of the current ozone NAAQS.

³⁴ Ozone NAAQS Proposal at 37906.

³⁵ *Id.* at 37907

³⁶ Congressional Research Service (CRS) R34057, *Ozone Air Quality Standards: EPA's 2007 Proposed Changes* (July 13, 2007) at CRS-8

Adequate federal funding for expansion of the ozone monitoring network should be provided so that state and local permitting authorities will have the information necessary to designate counties attainment or nonattainment. Otherwise, they will be unable to devise control strategies for achieving attainment as necessary, and residents of areas in which ozone levels are unknown and unmonitored will continue to suffer ill health needlessly. NACAA urges EPA to modify the 40 CFR Part 58, Appendix D, Table D-2 SLAMS Minimum Ozone Monitoring Requirements so as to fund and provide monitors in an evenhanded way that does not penalize those persons who have chosen to live in cities of under 350,000.

We provide several illustrative examples relayed by NACAA members. The monitoring network director of a large Northeast state with both urban and rural populations disagrees with EPA's statement that no monitoring changes are necessary to support implementation of a revised NAAQS. This state has six MSAs of fewer than 350,000 populations, and if the 0.070-0.075 ppm range were selected for the primary ozone standard, according to the monitoring director, some of these areas would be above the standard, and some below it. Several are not now covered adequately by an ozone monitor. Although the monitoring director states that it has been possible to demonstrate through comparisons with other monitors and through modeling results that these areas are in fact in attainment of the current standards, a lowering of the primary standard to the point at which the area was close to the proposed standard would require additional ozone monitors to clearly define the areas of nonattainment.

A monitoring director from a Midwestern state arrived at the same conclusion for his state. A map of design values in this state indicates that of the 11 ozone monitors that are already sited in the state, all would have design values higher than 85 percent of a primary NAAQS set at 0.070 ppm. As with the Northeast state, the Midwest state can only resolve the uncertainty regarding attainment or nonattainment of these areas through monitoring. However, the monitoring director points out, such monitoring is not allowed by the Part 58 Table D-2 ozone network regulations. Table D-2 is, in effect, a "Catch 22:" If there is no design value for an area of fewer than 350,000 people, then there is no required monitor; but if there is no monitor, a design value cannot be established.³⁷ A literal reading of the current regulation suggests, therefore, that no new ozone monitors can ever be required when the NAAQS are lowered. If, however, the primary ozone standards are lowered to the range of 0.070-0.075 ppm, considerable uncertainty will arise.

In the opinion of the Midwestern state monitoring director, a more responsibly drafted Part 58 regulation would require a monitor to be placed downwind of an MSA of less than 350,000 if a design value appears to be greater than 85 percent of the NAAQS based on interpolating existing monitoring data or using regional ozone modeling, such as the Community Multiscale Air Quality (CMAQ) model. If the single monitor showed attainment issues based on a lower ozone standard, the monitoring director believes that

³⁷ 40 CFR Part 58, Appendix D, Table D-2.

an additional downwind monitor would also be necessary.³⁸ Nonattainment at a downwind site would also raise questions about the exposure of individuals in the city, which could be addressed by placing a population-oriented monitoring site in the city. Finally, an upwind monitoring site would be necessary so that the MSA seeking to solve a downwind ozone problem could establish whether concentrations upwind of the MSA are also elevated, in which case controls over the upwind areas would be required to mitigate the problem. Additional upwind monitors would be important to establish the upwind exposures and to demarcate the extent of the nonattainment area, according to the state's monitoring director.

Finally, a local agency described the possible effect of a more stringent standard on its already difficult funding situation, noting that it will be impossible to increase the level of monitoring without additional funding for implementation of the new primary and secondary standards. This monitoring director stated that a 2005 analysis of the monitoring network in the state and county indicated that many areas currently meeting the standard are projected to violate a lower standard. Some of the monitors that were part of this analysis, however, have now been shut down or relocated as a result of network reviews and funding cuts.

Other states and localities have also shut down many monitors nationwide due to flat funding for several years, followed by the severe budget cuts in State and Territorial Assistance Grants in 2007. In fact, if EPA anticipates that state and local government resources will fill the gaps left by inadequate federal funding for monitors and for personnel to operate the monitors, such an expectation is ill-founded. Adequate federal resources must be forthcoming to support the new health-based standard.

The proposed rule states, “[w]ith a lower [ozone] NAAQS, the issue arises of whether in some areas the required [ozone] monitoring season should be made longer.” A longer monitoring season will necessitate additional funding for equipment maintenance and calibration, quality assurance procedures, operator time in sampling and transmitting samples to the appropriate laboratory, and time inputting the data into the Air Quality System (AQS). EPA should, therefore, provide additional resources that correspond with the longer ozone seasons necessitated by the new NAAQS.

Monitoring—Secondary Ozone NAAQS

EPA's proposed rule points out that rural areas are currently only sparsely monitored for ozone so violations of the secondary NAAQS in areas with sensitive vegetation may occur undetected, as a result of transport from urban areas with high precursor emissions and/or ozone concentrations or from formation of additional ozone

³⁸ An additional downwind monitor would help establish the extent of the downwind nonattainment area, and would also be available if there were data capture problems with the first monitor, as EPA requires ninety percent data capture over three years to establish attainment for an area. It also would mean that the design value gained by three years of monitoring would not be lost if the site lease for the first monitor was not renewed.

from precursors emitted from sources outside urban areas.³⁹ The proposal states further that rural violations of a secondary NAAQS could occur in areas with sensitive vegetation even though urban monitoring networks are showing compliance with the primary NAAQS, whether the forms and levels of the two standards are the same or different.⁴⁰

The agency's own statements point to the logical conclusion that additional ozone monitors are needed in rural areas. NACAA agrees that rural violations of a secondary NAAQS will go undetected unless the agency provides adequate funding for an ozone network that will enable permitting authorities to determine compliance with the new standard. We urge EPA to avoid promoting voluntary monitoring (as suggested in the proposal). A voluntary approach ill serves this significant new standard and would likely result in scattershot, inconsistent monitoring. A well-planned and executed, federally funded approach would be more apt to yield adequate data, and, ultimately, sound mitigation measures.

Conclusion

NACAA urges EPA to follow the science and set a more stringent primary standard and a distinct, cumulative seasonal secondary standard in accordance with CASAC's recommendations. EPA should also recognize that, whatever decision EPA reaches on the primary and secondary standards, it will greatly affect the work of state and local air pollution control agencies. 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.

³⁹ Ozone NAAQS Proposal at 37907.

⁴⁰ Id. See also, CRS Report RL34057, *supra* note 36, at CRS-8, which states "the current monitors are generally found in urban areas, because of the larger populations potentially affected, and because most of the sources of ozone precursor emissions are located in such areas. But...ozone is not emitted directly by polluters. It forms in the atmosphere downwind of emission sources. Thus, rural areas can have high ozone concentrations, unless they are located a substantial distance from any urban area."