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February 1, 2016

Gina McCarthy, Administrator  
U.S. Environmental Protection Agency  
EPA Docket Center (EPA/DC)  
Mailcode 28221T  
1200 Pennsylvania Avenue, NW.  
Washington, DC 20460

RE: Proposed Cross State Air Pollution Rule Update for the 2008 Ozone NAAQS. Docket ID No. EPA-HQ-OAR-2015-0500

Dear Administrator McCarthy:

The American Lung Association urges the U.S. Environmental Protection Agency to adopt the strongest possible steps to reduce the interstate transport of ozone. We are pleased that the EPA is strengthening the Cross State Air Pollution Rule (CSAPR) to address upwind emissions that significantly impact downwind ozone levels in areas in nonattainment for the 2008 NAAQS. The proposed CSAPR provides a crucial step in the right direction, but falls short of what is needed to meet the outdated ozone national ambient air quality standards (NAAQS) set in 2008. We urge EPA to strengthen the proposed rule and expand its coverage beyond the eleven states currently included in the proposal.

**The Clean Air Act requires EPA to adopt a rule that truly protects people in downwind states.**

We are pleased that EPA is updating the CSAPR to focus on meeting a more recent ozone standard than the one established nearly two decades ago. Substantial evidence has grown since 1997 of the harm that ozone pollution causes to human health. Unfortunately, neither the NAAQS for ozone adopted in 2008 of 75 parts per billion (ppb) nor the one set in 2015 at 70 ppb provides sufficient protection to public health with “an adequate margin of safety” as required by the Clean Air Act (42 U.S.C. § 7409 (b) (1)). Fortunately, both are stronger than the standard set in 1997 that the current CSAPR and the Clean Air Interstate Rule targeted.

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Given those limitations, it is crucial that this CSAPR meet the requirements of the Clean Air Act. The Clean Air Act requires states to include in their plans to implement the NAAQS “adequate provisions...prohibiting...any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will...contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary air quality standard....” Section 110(a)(2)(D)(i)(I). If a state does not meet that requirement on its own, EPA must require it to do so or impose a federal implementation plan (FIP).<sup>1</sup> Once EPA has determined that transported pollution significantly contributes to downwind nonattainment problems, it must require that pollution to be eliminated.

### Ozone pollution poses serious health risks that require EPA action

From the first Clean Air Act in 1970, ozone was recognized as one of the six most widespread and dangerous air pollutants. The mounting evidence examined in multiple EPA reviews demonstrates why Americans deserve to be protected from this pollutant blowing into their communities from upwind sources.

**Respiratory.** A vast body of research documents the impact of ozone on respiratory symptoms, lung function changes, emergency department visits for respiratory disease, and hospital admissions. Just to cite one set: several large studies looking at single cities and multiple cities confirm that breathing ozone increases the risk of hospital admission and emergency department visits for respiratory conditions (Katsouyanni et al, 2009; Lin et al., 2008; Darrow et al., 2011; Stieb et al., 2009).

**Cardiovascular.** Expanded evidence warns of the cardiovascular effects of ozone, with the strongest evidence for increased risk of premature death. Previous studies have shown adverse associations between ozone exposure and various cardiovascular health endpoints, including cardiac arrhythmias (Rich et al., 2006), strokes (Henrotin et al., 2007), heart attacks (Ruidavets et al., 2005), and hospital admissions or cardiovascular diseases (Koken et al., 2003). Newer large epidemiologic studies from the U.S. (Zanobetti and Schwartz, 2008), Europe (Samoli et al., 2009) and Asia (Wong et al 2010) have provided evidence of premature death from cardiovascular

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<sup>1</sup> Section 110(c)(1) of the Act provides: “The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator—

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A) of this section, or

(B) disapproves a State implementation plan submission in whole or in part,

unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.”

effects, including two large studies that confirmed the effect after controlling for particulate matter exposure (Katsouyanni et al., 2009; Stafoggia, 2010).

**Pregnancy and fetal development.** Newer research raises concerns about longer-term exposure to ozone, particularly during pregnancy. Several large studies in California and Australia point to association of prenatal ozone exposure with low birth weight and impaired fetal growth (Salem et al., 2005; Morello-Frosch et al. 2010; Hansen et al. 2007, Hansen et al. 2008; Mannes et al. 2005).

**Central Nervous System.** Toxicological studies provide evidence that short- or long-term exposure to ozone may affect cognitive abilities, such as memory (Rivas-Arancibia et al., 1998), and may produce changes similar to those seen in human neurodegenerative disorders (Rivas-Arancibia et al., 2010; Santiago-López et al., 2010; Guevara-Guzman et al., 2009).

**Premature deaths.** Multiple new studies have confirmed that ozone causes premature deaths (Zanobetti and Schwartz, 2008; Samoli et al., 2009; Wong et al., 2010) and provided evidence that these deaths occur even after controlling for other pollutants, including particulate matter (Stafoggia, 2010; Katsouyanni et al., 2009). Of special concern, the risk of premature death from ozone showed up more frequently in communities with higher unemployment or that had a higher percentage of Black population, as well as in individuals who were Black or who had lower socioeconomic status (Median-Ramón and Schwartz, 2008).

**At-risk groups.** The list of populations who risk demonstrated harm from ozone pollution has grown significantly in newer research. Children, people with asthma and other lung diseases, seniors, outdoor workers and people who have low socioeconomic status have long been shown to be vulnerable to ozone. Newer evidence shows some otherwise healthy adults are especially sensitive to ozone exposure because of limitations in some nutrients and certain genetic variants. In addition, the EPA's *Integrated Science Assessment* has documented evidence that suggests increased risk to fetal development and to cardiovascular harm (EPA, 2013).

### Power plants remain a major source of emissions that contribute to ozone pollution

Electricity generating units (EGUs) have historically contributed significantly to the formation of ozone through emissions of nitrogen oxide (NO<sub>x</sub>), one of the two primary precursors of ozone. Fortunately, emissions from these EGUs have dropped significantly since 2008, when NO<sub>x</sub> emissions reached 3.4 million tons (EPA, 2015b). Based on the most current emissions inventory, EGUs remain largest stationary source of NO<sub>x</sub> emissions in the nation, spewing 2 million tons into the atmosphere in 2011 (EPA, 2015b).

### The proposed Cross State Air Pollution Rule provides much-needed updates to the existing rule

First, EPA's long-needed decision to base the assessment of downwind impacts of transported ozone pollution on the 2008 standard is a crucial step forward. EPA has had more than adequate

time to evaluate the upwind states' contributions to those downwind nonattainment areas using the 2008 standard. Now that CSAPR is no longer blocked by Court action, the time has come to reduce the burden downwind nonattainment areas so they can meet the 2008 standard and the 2015 standard.

The proposed rule also recognizes the disturbing reality that many electricity generating units installed, but repeatedly failed to use, required equipment to reduce emissions of NO<sub>x</sub>, which is a key precursor not only to ozone, but also to particulate matter, as well as a serious health threat in its primary gaseous state. EPA found these devices were installed, but instead of being used to protect health, were "idled, bypassed, or mothballed." (EPA, 2015a). We support EPA taking steps to ensure that these systems are used, as intended, to protect those who breathe the air downwind of these units.

### The proposed Cross State Air Pollution Rule needs to be stronger

We see EPA's honest appraisal that this rule fails to reduce emissions sufficiently to meet EPA's Clean Air Act responsibility to enable these states to meet the 2008 ozone NAAQS. EPA recognizes that the steps in the plan would not reduce emissions sufficiently to protect the millions of people living downwind, including the groups most at risk from this pollution. EPA argues that to meet the 2018 deadline for action, the limited steps they propose are all that can realistically be done. But the law requires EPA to provide protection, not excuses for inaction.

We see serious flaws in that thinking and offer recommendations that would strengthen the final rule.

**EPA must set stronger limits on the emissions for each state.** EPA has stated their intention not to proscribe steps, but to base the plan on the states determining what the best combination of measures are that will meet the limits. EPA optimistically states that these measures include "operating existing SCR and SNCR controls, installing or upgrading to state-of-the-art combination controls, or shifting generation to low NO<sub>x</sub> emitting units." (FR 75742)

However, these are unlikely to be the actions taken without stronger limits on states because of the abundance of stored credits that will be used in place of emission reductions.

We have raised serious concerns in the past about the use of emissions credits trading programs. Far too often, the use of credits by plants to avoid cleaning up penalizes communities near to the plants that continue to suffer from the direct effects of the NO<sub>x</sub> and other emissions that remain at high levels. Those communities are often low income or minority communities, which already tend to have more people who suffer from asthma or other health problems that the emissions worsen. The proposed rule continues that dangerous, burdensome situation by continuing to permit the use of accumulated credits instead of real reductions in emissions.

Legal challenges brought by many of these same utilities delayed the original CSAPR and have rewarded them with closets full of credits that can be used in place of having to reduce emissions. As EPA acknowledged in the proposed rule:

“[The] total banked allowances for the CSAPR ozone-season trading program could be in excess of 210,000 tons by the start of 2017 ozone-season compliance period, which is more than twice the emission reduction potential estimated at the \$1,300 per ton control level described [above]. (FR 75746).

**Given all those readily available credits, EPA proposes to require that more credits be used to meet the reduction requirements. Instead of allowing one credit to equal one required reduction allowance, EPA proposes either requiring two or four credits be used to equal one allowance, a two-for-one or a four-for-one surrender ratio.**

**Building in the option for the use of these banked credits at all creates a dangerous policy precedent. The utilities that banked these credits under the current CSAPR fought successfully to block CSAPR and to avoid cleaning up these EGUs. Allowing the use of such credits that could have been used during the original CSAPR, but now have accumulated to astounding numbers, offers encouragement to future polluters to follow the same path.**

**We recommend starting fresh with this revised CSAPR. If EPA seeks to continue to create credits that can be traded, allow only the use of credits earned during this period. EPA must raise the bar above the proposal ratio. Even the stronger of those proposed ratios, four-for-one, is too generous and should be strengthened.**

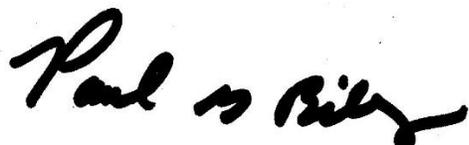
**With stronger limits on state emissions, EPA should require additional steps to further reduce emissions to allow downwind communities to meet the 2008 ozone NAAQS. Such steps include:**

- Dispatching coal-fired plants less frequently or for shorter periods as a source of electricity. The plan should require the use of less polluting EGUs before using coal-fired ones to reduce emissions. This should be a priority on days forecast as high ozone days, similar to the ways that the states already enforce no-burn days.
- Repowering or retiring coal-fired power plants. EPA should require these major sources to use alternative fuels or simply close.
- Allocating emissions based on the maximum use of the NOx control equipment. Idling, bypassing or mothballing equipment that can reduce NOx emissions can no longer be permitted.
- Including a second phase of requirements to incorporate these more protective limits on emissions, if the agency decides to continue the limited implementation proposed here.

## Conclusion

EPA has a requirement to protect the health of people who cannot protect themselves from high levels of ozone pollution that blow across state lines. EPA recognizes that the CSAPR, as proposed, fails to provide that protection. The American Lung Association urges EPA to take steps to strengthen the final rule to meet that test and protect the health of millions from this dangerous pollutant.

Sincerely,

A handwritten signature in black ink that reads "Paul G. Billings". The signature is written in a cursive, flowing style.

Paul G. Billings  
Senior Vice President, Advocacy  
American Lung Association



## References

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