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September 23, 2015

Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave Washington, D.C. 20460

Administrator McCarthy:

On behalf of the 15,000 members of the American Thoracic Society and the patients we serve, we strongly urge you to adopt a final 8-hour average daily ozone (O_3) National Ambient Air Quality Standard of 60 ppb. The lives of thousands of Americans are at stake.

The American Thoracic Society, in partnership with the Marron Institute of Urban Management at NYU, will soon release a report that documents the potential lives saved and serious morbidity avoided by setting a more protective ozone standard. The information in this report makes a compelling case for why EPA must adopt a more protective standard of 60 ppb:

- A standard of 60 ppb will prevent 6,408 premature deaths annually, as compared to current exposure levels.

- A less protective standard of 70 ppb would result in 3,752 more premature deaths annually, as compared to 60 ppb.

The lives of 3,700 Americans are too important for EPA to ignore.

Attached to this letter, we have provided summary information about the report's methods and its findings. While the report provides important city-by-city information, it merely confirms the existing scientific record available to EPA demonstrating the need for a more protective standard. We hope this additional information will be useful as you move forward with a final standard for ozone

Administrator McCarthy, the fate of thousands of lives annually rests on your decision. We urge you to use EPA's authority to protect the lives and health of these Americans by adopting a protective standard of 60 ppb.

Sincerely,

George Thurston, Sc.D.
Chair, ATS Environmental Health Policy Committee

Mary B. Rice, M.D.
Vice Chair, ATS Environmental Health Policy Committee

Kevin Cromar Ph.D.
Lead Report Author, ATS Air Quality Report
Director, Air Quality Initiative, Marron Institute of Urban Management at NYU

Background

Ozone air pollution, much of it a result of emissions from power plants and motor vehicles, represents a particularly widespread threat to American families. Ozone is especially dangerous for sensitive populations, including children, the elderly, those with preexisting respiratory and cardiovascular disease, outdoor workers, low-income families, and communities of color. The Clean Air Act is clear in requiring EPA to set its clean air standards to protect vulnerable populations, without consideration of cost.

Methods

To assess the health benefits of attaining the ATS-recommended National Ambient Air Quality Standard (NAAQS) for ozone standard of 60 ppb, the ATS Environmental Health Policy Committee and the Marron Institute of Urban Management at New York University have partnered to develop a web-based annual report outlining the health benefits of achieving the ATS recommended standards for particle pollution and ozone in cities across the United States. The first of these reports is expected to be released in the *Annals of the American Thoracic Society* shortly. This letter contains study results pertinent to the revision of the NAAQS for ozone.

This report is unique from EPA's estimated benefits of reduced ozone, in that the ATS report does not attempt to account for the reductions of ozone driven by other EPA policies.

Due to the demonstrated health impacts of ambient ozone across the entire age spectrum as reported in the published literature, ATS has consistently advocated for a revised ozone standard of 60 ppb.[1] Since 2007, when this recommendation was first made by ATS, the scientific evidence has significantly strengthened, especially in regards to mortality risk and reduced lung function.[2] In our joint report, we quantify health benefits of meeting our recommended revised standard of 60 ppb, and also higher standards that are being considered by the EPA administrator.

Health benefit estimates for meeting the current (75 ppb) and prospective ozone standards (70, 65 and 60 ppb) were made for counties with at least one monitor with a valid design value for years 2011-2013 (downloaded from http://www.epa.gov/airtrends/values.html).
Health benefit estimates for these counties were then made based on hourly 2013 monitoring data (downloaded from EPA AirData).

Using concentration-response functions, health incidence data, and population statistics as contained in BenMAP CE 1.1 (open-source software provided by the EPA to estimate health impacts due to changes in air quality), health estimates were made for mortality risk, hospital admissions, emergency department visits, restricted activity days, and lost school days.[3-12] Health studies using 24-hour mean, 8-hour maximum, and 1-hour maximum metrics were all investigated. In instances where more than one study was available for a particular health endpoint, uniform averages of central estimates were determined.

Results

Looking at mortality benefits of other prospective standards indicates that meeting a revised standard of 70 ppb would result in 2,656 total avoided deaths and another similar incremental

mortality benefit (1,212 deaths) from going further from 75 to 70 ppb vs. meeting the current standard (1,444 deaths). Incremental mortality benefits further increase in moving from 70 to 65 ppb (1,740 additional deaths avoided), and from 65 to 60 ppb (2,013 additional deaths avoided), because of larger proportion of the U.S. population that would benefit from the cleaner air these lower standards would provide.

Table 2 shows a list of the top 30 metropolitan districts and metropolitan statistical areas with the highest number of estimated mortality benefits. The estimated 3,659 avoided deaths in these 30 metropolitan areas constitutes 57% of the total mortality benefits estimated for the United States in meeting the ATS recommendation of 60 ppb.

Table 1. Estimated Mortality Benefits from Full Attainment of Current and Prospective Ozone Standards

Ozone Standard	Concentration	Total Avoided Mortality*	Additional Avoided Mortality**
Current EPA Standard	75 ppb	1,444	1,444
Prospective Standard	70 ppb	2,656	1,212
Prospective Standard	65 ppb	4,395	1,739
ATS Recommendation	60 ppb	6,408	2,013

*Total mortality benefits compared to current ozone levels.
**Additional benefits compared the next highest standard.

Table 2. Top 30 Metropolitan District and Metropolitan Statistical Areas for Estimated Mortality Benefits for Full Attainment of ATS Recommended Standard (60 ppb)

Rank	Location (Metropolitan District or Statistical Area)	Total Avoided Mortality
1	Los Angeles-Long Beach-Glendale, CA	619
2	Riverside-San Bernardino-Ontario, CA	361
3	New York-Jersey City-White Plains, NY-NJ	280
4	Phoenix-Mesa-Scottsdale, AZ	199
5	Dallas-Plano-Irving, TX	142
6	San Diego-Carlsbad, CA	132
7	Sacramento--Roseville--Arden-Arcade, CA	128
8	Houston-The Woodlands-Sugar Land, TX	122
9	St. Louis, MO-IL	117
10	Baltimore-Columbia-Towson, MD	103
11	Chicago-Naperville-Arlington Heights, IL	91
12	Pittsburgh, PA	88
13	Fort Worth-Arlington, TX	87
14	Atlanta-Sandy Springs-Roswell, GA	86
15	Philadelphia, PA	84
16	Las Vegas-Henderson-Paradise, NV	82
17	Cleveland-Elyria, OH	81
18	Warren-Troy-Farmington Hills, MI	79
19	Nassau County-Suffolk County, NY	78

20	Cincinnati, OH-KY-IN	77
21	Montgomery County-Bucks County-Chester County, PA	72
22	Denver-Aurora-Lakewood, CO	71
23	Washington-Arlington-Alexandria, DC-VA-MD-WV	67
24	Anaheim-Santa Ana-Irvine, CA	64
25	Detroit-Dearborn-Livonia, MI	64
26	Columbus, OH	63
27	Fresno, CA	60
28	New Haven-Milford, CT	55
29	Indianapolis-Carmel-Anderson, IN	53
30	San Antonio-New Braunfels, TX	52
		Total= 3,659*

*57% of total mortality benefits in the United States.

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