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June 25, 2012

The Honorable Lisa Jackson, Administrator
U.S. Environmental Protection Agency
Air and Radiation Docket and Information Center
Mail Code 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Docket ID No. EPA-HQ-OAR-2011-0660

Dear Administrator Jackson:

We write in support of strong standards to reduce power plant carbon pollution. These proposed standards can play an important role in reducing the risk of adverse health effects associated with ozone ("smog") on our nation's most vulnerable populations, including children, sick, and the elderly. These standards must be finalized for the U.S. Environmental Protection Agency (EPA) to take an important first step toward ensuring that electricity is produced by the most modern, and least toxic, power plants. Furthermore, we ask that EPA begin work on a carbon pollution standard for existing power plants.

The Clean Air Act requires the EPA to regulate air pollutants if they are found to endanger the public's health. The Supreme Court ruled that greenhouse gases (GHG) met the definition of air pollutants in the Clean Air Act in 2007 and directed EPA to assess whether or not GHGs do endanger health. In 2009, the EPA found that concentrations of GHG in the atmosphere endanger the health and welfare of current and future generations by increasing temperatures and ozone pollution. This increase puts some of our nation's most vulnerable communities at greater risk for their health.

To regulate a pollutant such as GHG, the EPA must list categories of stationary sources that cause or contribute to air pollution, which may adversely impact the public's health or welfare. Electricity generating units (EGUs) are the largest stationary source of GHG in the United States. Energy accounts for 86 percent of total 2009 GHG emissions,[i] and the electric sector represents 39 percent of all energy-related CO_2 emissions.[ii] To regulate emissions from EGUs, the EPA must issue a new source performance standard (NSPS), which includes the achievable, best system to reduce emissions (BESR) considering cost and other factors. The proposed rule offers a NSPS for greenhouse gas emissions from electric utility generating units, commonly referred to as power plants.

As carbon pollution builds up in the atmosphere, scientists believe that it will likely lead to increased temperatures. The increase in temperatures can increase the risk of ground level ozone (or smog) formation.

Ozone is a colorless, odorless gas that reacts chemically ("oxidizes") with internal body tissues, such as those in the lung. Ozone acts as a powerful respiratory irritant at the levels frequently found across the nation during the summer months. Breathing ozone may lead to shortness of breath and chest pain[iii], wheezing and coughing[iv]; increased risk of asthma attacks[v]; increased susceptibility to respiratory infections[vi], and need for medical treatment and for hospitalization for people with lung diseases, such as asthma or chronic obstructive pulmonary disease (COPD)[vii] and premature death.[viii]

The most vulnerable individuals, including children, teens, senior citizens, people who exercise or work outdoors, and people with chronic lung diseases like asthma, COPD, and emphysema, are most in danger of being sickened by ozone.[ix] So-called "responders," otherwise healthy individuals, who experience health effects at lower levels of exposure than the average person, are also susceptible to ozone.[x] Children who grow up in areas of high ozone pollution may never develop their full lung capacity as adults. That could put them at greater risk of lung disease throughout their lives.[xi]

Many areas in the United States produce enough ground-level ozone to cause health problems at levels currently found across the nation. The United States has worked hard since the 1970 Clean Air Act to cut ozone levels, and reduced them by 13 percent between 2001 and 2010, according to the EPA's most recent trend analysis.[xii] However, millions of people live in places that still struggle to meet standards set in 1987, including Los Angeles and Houston. And as the evidence clearly shows that the 2008 ozone standards fail to adequately protect public health, the challenge to provide air that is no longer burdened by unhealthful levels of ozone will continue for decades.

As EPA noted in their 2009 assessment of the impact of climate change on regional air quality in the United States, many studies "have demonstrated connections between meteorological variability and O_3 concentrations and exceedances, implying the possibility of climate change leading to increasing O_3 levels in some regions."[xiii]

The full impact of climate on ozone and other air pollutants is complicated. However, the best understanding shows that carbon pollution-aided climate change will increase the challenge to meeting future national air quality standards for ozone. The "climate change penalty" will add complications going forward.

Because of the relationship between carbon pollution, climate change and formation of ozone (and its attendant health impacts), we urge EPA to finalize this rule this year and to propose standards to address carbon pollution from existing sources for immediate consideration.

Thank you for the opportunity to comment on these rules.

Sincerely,

Peter M. Iwanowicz
Assistant Vice President
American Lung Association

Donald Hoppert
Director, Government Relations
American Public Health Association

Charlotte Collins, J.D.
Vice President, Policy and Programs
Asthma and Allergy Foundation of America

Gary Cohen
Executive Director
Healthcare Without Harm

Laura Hanen,
Chief, Government and Public Affairs
National Association of County and City Health Officials

Catherine Thomasson, MD
Executive Director
Physicians for Social Responsibility

Citations

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[i] "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009," Report EPA 430-R-11-005, United States Environmental Protection Agency. April 15, 2011. Table ES-4.

[ii] "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009," Report EPA 430-R-11-005, United States Environmental Protection Agency. April 15, 2011. Table ES-2.

[iii] Horstman DH, Folinsbee LJ, Ives PJ, Abdul-Salaam S, McDonnell WF. Ozone concentration and pulmonary response relationships for 6.6-hour exposures with five hours of moderate exercise to 0.08, 0.10, and 0.12 ppm. *Am Rev Respir Dis* 1990; 42:1158-1163; McDonnell WF, Stewart PW, Smith MV, Pan WK, Pan J. Ozone-induced respiratory symptoms: exposure-response models and association with lung function. *Eur Respir J* 1999;14:845–853.

[iv] Triche EW, Gent JF, Holford TR, Belanger K, Bracken MB, Beckett WS, Naeher L, McSharry JE, Leaderer BP. Low-level ozone exposure and respiratory symptoms in infants. *Environ Health Perspect* 2006;114:911–916.

[v] Mortimer KM, Neas LM, Dockery DW, Redline S, Tager IB. The effect of air pollution on inner-city children with asthma. *Eur Respir J* 2002; 19:699-705.

[vi] Hollingsworth JW, Kleeberger SR, Foster WM. Ozone and pulmonary innate immunity. *Proc Am Thorac Soc* 2007;4:240-246.

[vii] Cakmak, S; Dales, RE; Judek, S. (2006b). Respiratory health effects of air pollution gases: Modification by education and income. *Arch Environ Occup Health* 61: 5-10. http://dx.doi.org/10.3200/AEOH.61.1.5-10; Dales, RE; Cakmak, S; Doiron, MS. (2006). Gaseous air pollutants and hospitalization for respiratory disease in the neonatal period. *Environ Health Perspect* 114: 1751-1754. http://dx.doi.org/10.1289/ehp.9044; Katsouyanni, K; Samet, JM; Anderson, HR; Atkinson, R; Le Tertre, A; Medina, S; Samoli, E; Touloumi, G; Burnett, RT; Krewski, D; Ramsay, T; Dominici, F; Peng, RD; Schwartz, J; Zanobetti, A. (2009). Air pollution

and health: A European and North American approach (APHENA). (Research Report 142). Boston, MA: Health Effects Institute. http://pubs.healtheffects.org/view.php?id=327

[viii] Bell ML, Dominici F, and Samet JM. A Meta-Analysis of Time-Series Studies of Ozone and Mortality with Comparison to the National Morbidity, Mortality, and Air Pollution Study. *Epidemiology* 2005; 16:436-445. Levy JI, Chermerynski SM, Sarnat JA. Ozone Exposure and Mortality: an empiric Bayes metaregression analysis. *Epidemiology* 2005; 16:458-468. Ito K, De Leon SF, Lippmann M. Associations Between Ozone and Daily Mortality: analysis and meta-analysis. *Epidemiology* 2005; 16:446-429.

[viii] Bates DV. Ambient Ozone and Mortality. *Epidemiology* 2005; 16:427-429.

[ix] Gent JF, Triche EW, Holford TR, Belanger K, Bracken MB, Beckett WS, Leaderer BP. Association of Low-Level Ozone and Fine Particles with Respiratory Symptoms in Children with Asthma. *JAMA* 2003; 290:1859-1867Desqueyroux H, Pujet JC, Prosper M, Le Moullec Y, Momas I. Effects of air pollution on adults with chronic obstructive pulmonary disease. *Arch Environ Health* 2002;57:554-560; Desqueyroux H, Pujet JC, Prosper M, Squinazi F, Momas I. Short-Term Effects of Low-Level Air Pollution on Respiratory Health of Adults Suffering from Moderate to Severe Asthma. *Environ Res* 2002; 89:29-37; 72:24-31and Höppe P, Peters A, Rabe G, Praml G, Lindner J, Jakobi G, Fruhmann G, Nowak D. Environmental ozone effects in different population subgroups. *Int J Hyg Environ Health* 2003;206:505-516;

[x] Devlin RB. Identification of subpopulations that are sensitive to ozone exposure: Use of end points currently available and potential use of laboratory-based end points under development. *Environ Health Perspect* 1993;101:225-230

[xi] Kunzli N, Lurmann F, Segal M, Ngo L, Balmes J, Tager IB. Association Between Lifetime Ambient Ozone Exposure and Pulmonary Function in College Freshmen-Results of a Pilot Study. *Environmental Research* 1997; 72: .8-23.

[xii] U.S. EPA. *Our Nation's Air: Status and Trends through 2010.* February 2012. EPA-454/R-12-001.

[xiii] U.S. EPA. Assessment of the Impacts of Global Change on Regional U.S. Air Quality: A synthesis of climate change impacts on ground-level ozone. April 2009. EPA/600/R-07/094F