March 16, 2015

Docket ID: EPA-HQ-OAR-2008-0699
Environmental Protection Agency
RE: Proposed Rule for Revision of the National Ambient Air Quality Standards for Ozone; Federal Register 79 FR 75233, December 17, 2014.

As a law student at CUNY School of Law, I am interested in matters pertaining to the environment and the laws that govern them. I respectfully submit this comment in response to the Federal Register Notice, published on December 17, 2014, regarding the EPA's proposed rule on the revision of current National Ambient Air Quality Standards for Ozone. The proposed rule would lower current ozone NAAQS to a level in the range of 65-70 ppb, and I am writing in favor of this.

Prior to the current proposed rule, the EPA completed its most recent review of ozone NAAQS in 2008. As per CAA requirements of the periodical review of air quality standards, this proposed rule is timely and I believe the agency must continue to push for the most stringent ozone NAAQS levels as can be realistically executed. The new standards should not be considered such a far departure from the current standards as to deem their implementation implausible or astronomically costly, as many would like us to believe. For the overall health, welfare and well-being of the general public, we must constantly strive for improved air quality.

The ISA for Ozone and Related Photochemical Oxidants[1] lays out the irrefutable effects that poor air quality has on the general health of the country's population. Respiratory problems such as decrease in lung function, increase in asthma, etc… are all common ailments associated with poor air quality. These effects are most likely to be

[1] EPA, *Integrated Science Assessment for Ozone and Related Photochemical Oxidants*, EPA 600/R-10/076F, February 2013

seen in children, the elderly and those living in underprivileged urban areas. We can all agree on these facts to be true, and they should be enough in and of themselves to support more stringent ozone NAAQS.

However, if that is not enough, the ISA has also shown that there is likely to be a causal relationship between short-term exposure to O_3 and total mortality rates.[2] In short, the study reads "The evidence is highly suggestive that O_3 directly or indirectly contributes to non-accidental and cardiopulmonary-related mortality."[3] No surprise, these associations proved to be stronger during the warmer months, when O_3 levels were higher. Moreover, a recent article published on LiveScience reported that "Air pollution may be responsible for more than 2 million deaths around the world each year, according to a new study…The study also found that 470,000 deaths yearly are linked with human sources of ozone, which forms when pollutants from sources such as cars or factories come together and react. Exposure to ozone has been linked to death from respiratory diseases."[4] The EPA also noted that "reducing pollution to meet the ozone standard will reduce both ozone and particle pollution. EPA estimates that reducing pollution to meet the standards of 2025 will yield annual health benefits…including the value of preventing harm to health that includes…710 to 4,300 premature deaths nationwide…and 110 to 430 premature deaths in California."[5] It's frightening to me that even in light of this

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[2] EPA, *Integrated Science Assessment for Ozone and Related Photochemical Oxidants*, EPA 600/R-10/076F, February 2013

[3] EPA, *Integrated Science Assessment for Ozone and Related Photochemical Oxidants*, EPA 600/R-10/076F, February 2013

[4] Rachel Rettner, *2 Million Deaths Yearly Worldwide Linked with Air Pollution*, July 11, 2013. http://www.livescience.com/38125-air-pollution-global-deaths.html

[5] EPA, *Overview of EPA's Proposal to Update the Air Quailty Standards for Ground-Level* Ozone, epa.gov/airquality/ozonepollution/pdfs/20141125fs-overview.pdf

information, many seem to worry more about the costs attributed to meeting the proposed ozone NAAQS than the potential risk of death resulting from non-compliance .

While it may seem absolutely improbable to put an actual dollar amount on a human life, it is necessary here in order to refute the ill-conceived notions that the costs associated with implementing the proposed ozone NAAQS proves too much to be justifiable. The figures on both sides of the argument will show that the theoretical "value" of human life far outweighs the costs of compliance with the proposed ozone NAAQS. While likely to fluctuate along with the economy and personal factors, the EPA has placed a value of $7.4 million on the "statistical life" of each person.[6] It is, of course, important to note that this figure is not a dollar amount on each individual life; rather, it should be seen as the product of cost-benefit analyses on "how much people are willing to pay for small reductions in their risks of dying from adverse health conditions that may be caused by environmental pollution."[7] Admittedly, there is a wide range in the number of potential prevention of premature deaths in implementing the proposed ozone NAAQS, noted above. Taking the mean of these figures, a potential 2,365 premature deaths may be avoided by the implementation of the proposed ozone NAAQS. At an estimated value of $7.4 million per "statistical life", that is an estimated $17.5 billion loss if the air quality is not improved.

Conversely, it is estimated that the cost of compliance with the proposed ozone NAAQS is "$3.9 billion in 2025 at a standard of 70 ppb, and $15 billion at a standard of 65 ppb nationwide, excluding California…estimated costs of meeting the proposed

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[6] EPA, **FAQ on Mortality Risk Evaluation webpage**, yosemite.epa.gov/ee/epa/eed.nsf/pages/MortalityRiskValuation.html#pastvsl

[7] EPA, **FAQ on Mortality Risk Evaluation webpage**, yosemite.epa.gov/ee/epa/eed.nsf/pages/MortalityRiskValuation.html#pastvsl

standards in California are $800 million for a standard of 70 ppb, and $1.6 billion for a standard of 65 ppb."[8] Even viewed in the most stringent light and using a standard of 65 ppb nationwide, $15 billion for attainment plus an additional $1.6 billion to include California, total cost of meeting proposed ozone NAAQS is an estimated $16.6 billion.

As we plainly see, $17.5 billion in the potential loss of human lives, taken as a rough estimate, far outweighs $16.6 billion in implementing the absolute most severe means in which industries across the nation will be in compliance with the proposed ozone NAAQS. It is evident that the cost of meeting the proposed ozone NAAQS, even at the most stringent levels to date, would still pale in comparison to the cost in human lives. These figures do not even include the loss of revenue due to missed work days, etc…It is obvious to see that those opposed to the revised ozone NAAQS due to the financial burden are not taking into account the long term detriment to society as a whole if standards are kept at their current levels.

It is cold and calculating to compare the cost of a human life with the cost of compliance with the proposed ozone NAAQS, but hopefully it will get the point across. We must continuously strive for better air quality, thus improving the quality of life for everyone across the nation. It is for these reasons that I am absolutely in favor of the proposed ozone NAAQS, as it is a step forward in the right direction for us all. Thank you for allowing me the opportunity to comment on this important matter.

Respectfully,

Pauline M. Shomonnedzad

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[8] EPA, *Overview of EPA's Proposal to Update the Air Quailty Standards for Ground-Level* Ozone, epa.gov/airquality/ozonepollution/pdfs/20141125fs-overview.pdf