

December 4, 2015

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Attention Docket ID No. EPA-HQ-OAR-2010-0505

Dear Administrator McCarthy:

We, the undersigned physicians, nurses, and health professionals, strongly support the U.S. Environmental Protection Agency's proposed rules to reduce industrial methane and volatile organic compounds (VOCs) from new oil and gas sources. These standards will not only help to mitigate climate change and its associated health risks by curtailing emissions of methane – an especially potent greenhouse gas – from new and modified sources, but will also limit emissions of toxic and carcinogenic air pollutants, benefiting public health in communities across the country. Furthermore, we call on EPA to develop standards to limit similar emissions from existing sources as well, to truly protect public health.

Climate change poses grave threats to public health. The changing climate threatens the health of Americans alive now and in future generations. Growing evidence over the past few years has demonstrated the multiple, profound risks that imperil the lives and health of millions (AAP, 2015, Luber et al., 2014; Pinkerton et.al, 2013; APHA, 2011; TFAH, 2009). Consequently, the nation has a short window to act to reduce those threats.

To protect our children, our communities and the public, the United States must significantly reduce greenhouse gases. Methane is a powerful greenhouse gas. Reducing methane is an essential step to reduce the burden of climate change, but the benefits go far outside the impact on the climate. Lifesaving benefits to public health can begin immediately.

Comprehensive methane standards would immediately reduce emissions of volatile organic compounds (VOC), which include gases recognized as hazardous air pollutants. Six organic hazardous air pollutants dominate the mass from oil and natural gas extraction and can most harm human health: benzene, toluene, carbonyl sulfide, ethylbenzene, mixed xylenes, and n-hexane. (EPA, 2015). Benzene and formaldehyde, another hazardous pollutant from oil and gas emissions, are recognized as known human carcinogens, while ethylbenzene is considered a probable carcinogen (HHS, 2011).

VOCs are also precursors to the formation of ozone when they react with nitrogen oxides in the presence of sunlight. By limiting emissions of VOCs, the proposed oil and natural gas standard will reduce the amount of ozone formed in the air and, consequently, the incidence of ozone-related health effects, including asthma attacks, hospital admission and premature deaths (EPA, 2013).

Some VOCs are also precursors to the formation of fine particulate matter, PM2.5. PM2.5 causes respiratory and cardiovascular harm, lung cancer and premature death (EPA 2009, Hamra, et al., 2014). Reducing emissions of VOCs will reduce the PM2.5 in the atmosphere, as well as decreasing the risk of asthma attacks, heart attacks and premature death from the PM2.5 (EPA, 2015).

Curtailling these emissions would particularly reduce the exposure to those most vulnerable.

A growing body of peer-reviewed science indicates that oil and gas development is associated with adverse health impacts, including premature birth, congenital heart defects, neural tube defects, and low birth weight for infants born to mothers living near natural gas development (Casey et al., 2015; McKenzie et al., 2014; Stacey et al., 2015). One recent analysis found that, as of June 2015, 84 percent of all peer-reviewed original research since 2009 on public health and modern oil and gas development suggested potential public health risks or actual adverse human health impacts (Hays and Shonkoff, 2015; Shonkoff et al., 2014).

People most at risk of harm from breathing these air pollutants from the oil and natural gas industry include: infants, children and teenagers; older adults; pregnant women; people with asthma and other lung diseases; people with cardiovascular disease; diabetics; people with low incomes; and healthy adults who work or exercise outdoors. Many live and work in communities near these oil and gas facilities, which are often located near lower income or minority communities.

The growing problem of methane in the atmosphere indicates that existing oil and gas infrastructure currently produce higher methane emissions than have been estimated (Brandt et al., 2014). One recent report estimated that nearly 90 percent of projected emissions from oil and gas development in 2018 will come from existing infrastructure (ICF, 2014). We need comprehensive rules that cover existing oil and gas wells and infrastructure to reduce methane emissions and the impact on climate. We unite in urging EPA to move quickly to address emissions from existing sources as well.

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