

April 22, 2016

The Honorable Neil Kornze, Director
U.S. Bureau of Land Management
Department of the Interior
1849 C Street, N.W.
Washington DC 20240

Attention Docket ID No. 1004-AE14

Dear Director Kornze:

We, the undersigned physicians, nurses, and health professionals, strongly support the U.S. Bureau of Land Management's proposed rules to reduce methane pollution and waste from new and existing oil and gas sources on federal and tribal lands. These standards will not only help to end the waste of a valuable public natural resource, they will also limit emissions of toxic and carcinogenic air pollutants, benefiting public health in communities across the country, while also mitigating climate change and its associated health risks by curtailing emissions of methane – an especially potent greenhouse gas.

Comprehensive methane standards will 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, other hazardous pollutants 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).

Western states where the vast majority of BLM's oil and gas production is centered experience harmful ozone air pollution in certain ways that are unique (or more pronounced) than other areas of the country. One specific feature of ozone pollution in the Intermountain West, in addition to harmful summertime ozone levels, is the prevalence of high wintertime ozone events. Atmospheric conditions and the increasing prevalence of certain emissions sources have helped produce these unsafe levels of wintertime ozone in some western states. There has been significant recent scientific work to better understand these issues, with some evidence suggesting that very high VOC concentrations are an important factor in producing these high ozone levels.¹

¹ High winter ozone pollution from carbonyl photolysis in an oil and gas basin, <http://www.nature.com/nature/journal/v514/n7522/full/nature13767.html>.

These wintertime ozone events are linked to (and could be exacerbated by) increasing levels of oil and gas development, which is a significant source of VOCs in the Intermountain West.² For instance, oil and gas development in the Upper Green River Basin area of Wyoming has caused that area—all of Sublette County and portions of Sweetwater and Lincoln Counties—to experience unhealthy wintertime ozone levels and be listed as a nonattainment area for ozone under the Clean Air Act. The Wyoming Department of Environmental Quality and the Wyoming Governor’s office have concluded that significant oil and gas development in this area is the driver of this area’s nonattainment status.³

Unsafe levels of wintertime ozone have likewise occurred in other areas throughout the west, including public lands managed by the BLM. In the Uinta Basin of Utah, for instance, much of which is managed by BLM, high winter ozone levels have been recorded, due to a combination of atmospheric conditions, oil and natural gas development and other factors.

Elevated ozone levels are also prevalent in the summertime in both rural and urban areas of the West, from San Juan and Eddy counties in New Mexico to western Colorado and Denver as well as other urban centers. In addition to other emissions sources, many of these areas are home to significant oil and gas development. If well designed and implemented, these BLM rules stand to significantly benefit these serious public health issues across the West.

Curtailing these oil and gas related emissions on federal and tribal lands 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.

Climate change also 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

² *Id.*

³ Letter to Ms. Carol Rushin, Acting Regional Administrator from Governor Dave Freudenthal (March 12, 2009).

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.

We unite in urging BLM to move quickly to address emissions from new and existing oil and gas sources on federal and tribal lands across the U.S. In addition, the undersigned public health professionals and groups support BLM finalizing the strongest possible methane pollution reduction requirements to protect human health and improve air quality.

Sincerely,

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