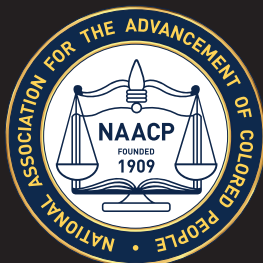


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Fumes Across the Fence-Line

The Health Impacts of Air Pollution from Oil & Gas Facilities



Executive Summary



The life-threatening burdens placed on communities of color near oil and gas facilities are the result of systemic oppression perpetuated by the traditional energy industry, which exposes communities to health, economic, and social hazards.

The oil and gas industry dumps 9 million tons of methane and toxic pollutants like benzene into our air each year. Methane is a greenhouse gas 87 times more potent than carbon dioxide at driving climate change and the oil and gas industry is now the largest source of methane pollution in the U.S. But methane is just one harmful air pollutant from the oil and gas industry. This paper sheds light on the health impacts of air pollutants from oil and gas facilities that specifically threaten the health of African American communities living near oil

and gas facilities and in areas far from oil and gas production.

The life-threatening burdens placed on communities of color near oil and gas facilities are the result of systemic oppression perpetuated by the traditional energy industry, which exposes communities to health, economic, and social hazards. Communities impacted by oil and gas facility operations remain affected due to energy companies' heavy polluting, low wages for dangerous work, and government lobbying against local interests. The nature of the vulnerability of African American and other person of color fence-line communities is intersectional—subject to connected systems of discrimination based on social categorizations such as race, gender, class, etc.

Health impacts from the natural gas supply chain (natural gas facilities as well as oil production facilities with associated gas) were quantified in two reports published by Clean Air Task Force (CATF). As demonstrated in the CATF's *Fossil Fumes* report, many of these toxic pollutants are linked to increased risk of cancer and respiratory disorders in dozens of counties that exceed U.S. EPA's level of concern. These pollutants from the natural gas supply chain also contribute to the ozone smog pollution that blankets the U.S. in the warmer months. The 2016 *Gasping for Breath* report, published by CATF, found that ozone smog from natural gas industry pollution is associated with 750,000 summertime asthma attacks in children and 500,000 missed school days. Among adults, this pollution results in 2,000 asthma related emergency room visits and 600 hospital admissions and 1.5 million reduced activity days. (Chapter 2)

This paper also shows the health impacts from petroleum refinery pollution. While we do not quantify health impacts from oil refineries, as

we did for impacts from natural gas facilities, we include case studies and stories from community members that have been impacted by pollution from these facilities. In this chapter, we focus solely on petroleum refineries, not the entire petroleum supply chain. (Chapter 3)

Many African American communities face serious health risks caused by air pollution. Higher poverty levels increase these health threats from air pollution translating into a bigger health burden on African American communities. And, companies often site high polluting facilities in or near communities of color, furthering the unequal distribution of health impacts. This paper for the first time quantifies the elevated health risk that millions of African Americans face due to pollution from oil and gas facilities. Specifically, the paper finds that:

- More than 1 million African Americans live within a half mile of existing natural gas facilities and the number is growing every year.
- As a result, many African American communities face an elevated risk of cancer due to air toxics emissions from natural gas development: Over 1 million African Americans live in counties that face a cancer risk above EPA's level of concern from toxics emitted by natural gas facilities.
- The air in many African American communities violates air quality standards for ozone smog. Rates of asthma are relatively high in African American communities. And, as a result of ozone increases due to natural gas emissions during the summer ozone season, African American children are burdened by 138,000 asthma attacks and 101,000 lost school days each year.
- More than 6.7 million African Americans live in the 91 counties with oil refineries.

The impacts described in this paper are just one layer of the many public health issues that these communities face. For example, this analysis only accounts for the risks associated with air pollution from oil and gas facilities—water and soil contamination may also harm communities living near oil and gas facilities. We also only included health impacts directly linked to oil and gas facilities—oil and gas development may



Equipment at a gas well.

Defending the safeguards finalized during the Obama administration and pushing for additional protections against pollution from the oil and gas industry will help improve the health of many African American communities while addressing global climate change.

also bring increased truck traffic, oil trains, and changes in land use, which can have significant public health impacts. In addition, many African American communities are located near other major sources of pollution, like power plants, chemical plants, hazardous waste facilities, and others. These communities already face high levels of pollution from various sources, and the added health threats from oil and gas development exacerbate their problems.

Air pollution is emitted from dozens of types of equipment and processes throughout the oil and gas sector, such as wells, completion equipment, storage tanks, compressors, and valves. Many proven, low-cost technologies and practices are available to reduce these emissions, while also reducing emissions of methane, the main

constituent of natural gas. Thus, policies that reduce pollution from the oil and gas industry can help protect the health of local communities while addressing global climate change. In the Waste Not report, Clean Air Task Force (CATF), the Natural Resources Defense Council (NRDC), and the Sierra Club called for EPA regulations to cut methane emissions from the oil and gas industry by half. These methane standards would also significantly cut toxic and ozone-causing air pollution, which could have important benefits for air quality and public health in and downwind of oil and gas producing areas. In addition, stringent standards specifically for toxic and ozone causing pollutants emitted throughout the oil and gas supply chain are needed to ensure compliance with the Clean Air Act and protect public health.

Defending the safeguards finalized during the Obama administration and pushing for additional protections against pollution from the oil and gas industry will help improve the health of many African American communities while addressing global climate change. In June 2016, the EPA finalized strong methane standards covering new and modified oil and gas facilities. Although cutting methane from new oil and gas facilities is a step in the right direction, more important is cutting pollution from the nearly 1.3 million existing oil and gas facilities. These standards will reduce the risk from the air toxics and ozone smog-forming pollutants from this industry, but

without a comprehensive standard, the vast majority, at least 75 percent, of all of the wells and oil and gas infrastructure in use today, will remain virtually unregulated and can continue to pollute without limit. Existing facilities spewed over 8 million metric tons of methane in 2015—equivalent in near-term warming potential to the greenhouse gas emissions from 200+ coal-fired power plants. To reduce the risk from air toxics and smog-forming pollution from this industry, EPA must require pollution reductions from all oil and gas facilities, and not roll back the protections that are already in place.

Environmental and energy justice issues are multilayered. Thus, the approach to tackling these issues must also be multilayered. People of color and low-income communities are disproportionately affected by exposure to air pollution, and standards that protect communities from this pollution are critical. In addition, these communities have a lot to gain from the transition from the current fossil fuel energy economy to one based on equitable, affordable, and clean energy sources. African American and other fence-line communities, such as people who are low-income, can organize to fight the intentional polluting of their neighborhoods. The first step is to address the many ways fossil fuels taint our communities, including the air pollution from oil and gas development.

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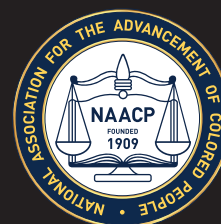
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The full report is available online at:

www.naacp.org/climate-justice-resources/fumes-across-the-fence-line
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