

Oil & Gas Pollution's Impacts on Oklahoma Families



Overview

Right now, there are nearly 30,000 active oil and gas wells, compressor stations, and processing plants in the state of Oklahoma. Each day, oil and gas activities across the state spring leaks that spew toxic pollution into the air, [like an invisible oil spill](#). The smog that pollution causes to form is endangering the health of communities across Oklahoma.

Unfortunately, Oklahoma lacks meaningful standards for detecting and repairing leaks, which reduce pollution from oil and gas activities and keep children and families healthy. Oklahomans rely on the protections provided by the federal New Source Performance Standards (NSPS), finalized by the Environmental Protection Agency (EPA) last year and similar standards finalized by the Bureau of Land Management (BLM) that apply on federal and tribal lands to safeguard against methane and other toxic pollution in the air our children breathe. The EPA's pollution standards apply to **almost 2,000** "new and modified" oil and gas wells across the state of Oklahoma; in order to reduce toxic emissions and comply with the EPA's standards, "new and modified" facilities are required to install pollution control equipment when they are first built or when an older facility is modified as well as regularly inspect and fix leaky equipment.² The BLM's rule applies similar requirements to find and fix leaking oil and gas infrastructure to wells on federal and tribal lands across Oklahoma and requires operators to minimize flaring.

EPA Administrator Scott Pruitt, the former Oklahoma Attorney General, has attempted to suspend these common sense leak detection and repair requirements [at the behest of the oil and gas lobby](#). In June, the EPA proposed a two year delay of the New Source Performance Standards. Meanwhile, Interior Secretary Ryan Zinke has also proposed to delay compliance with the BLM's rule. A court struck down Secretary Zinke's previous attempt to delay the rule. If these safeguards are suspended, or even worse repealed, families and children in Oklahoma undoubtedly face an ever-growing public health crisis from unchecked pollution in their communities and neighborhoods.

1 <http://oilandgasthreatmap.com/threat-map/oklahoma/>

2 <https://www.epa.gov/sites/production/files/2016-09/documents/source-determination-fs.pdf>



A side-by-side visual comparison of the Newfield Exploration Biehler Well Site which is in Omega, Kingfisher County, OK This facility is less than 1 mile from Lomega High School. On the left is an image of a methane release, which to the naked eye, is invisible. On the right is an image of the same methane release using FLIR technology, which captures and depicts the methane gas as it is released into the atmosphere. For additional FLIR images, please see the Appendices.

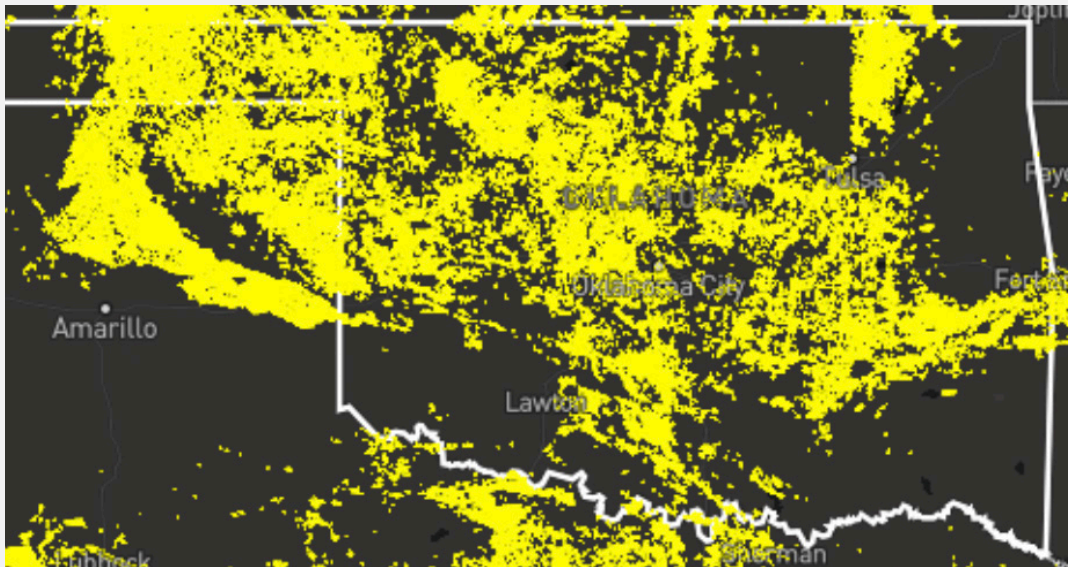
EPA's Oil & Gas Pollution Standards

The EPA's Oil & Gas Pollution Standards (officially called the "New Source Performance Standards") curb methane emissions, smog-forming VOCs, and other toxic air pollutants, such as benzene, in new, reconstructed, and modified oil and gas sources.³ The EPA rule is a vital safeguard for American families, especially children, from dangerous air pollution. Air pollution knows no borders.

BLM's Methane Waste Rule

The BLM's Methane and Waste Prevention Rule is designed to curb natural gas waste and pollution on American public and tribal lands using a similar set of standards as those finalized in the EPA rule. However, unlike EPA's new source rule, the BLM rule applies to both new and existing wells within the BLM's jurisdiction such as those in Oklahoma. In addition to public health benefits, the BLM's waste rule also provides tribes and local communities with additional royalties to fund schools and infrastructure projects.

3 <https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/new-source-performance-standards-and>



The Oklahoma oil and gas threat map depicts how asthma attacks in children are spread out across the entire state, because of pervasive oil and gas development.

Public Health Threat

Ozone, more commonly known as smog, is formed by harmful air pollution from oil and gas activities and is an immediate threat to our communities' health. There are 23 million Americans who suffer from asthma, including an estimated 6.1 million children.⁴ In Oklahoma, over 850,000 people live within half a mile of an oil and gas facility.⁵ Every year, increased ozone smog resulting from oil and gas pollution during the warm summer months causes 750,000 asthma attacks in children, more than 500,000 days of school missed, nearly 2,000 asthma-related emergency room visits, over 600 respiratory-related hospital admissions, and over 1.5 million days with restricted activity.⁵ Each year, there are nearly 40,000 asthma attacks in children due to ozone smog.⁷ Even healthy people who do not already suffer from asthma can be affected by ozone smog including suffering from reduced lung function, coughing, wheezing, and inflammation.⁸

4 <https://www.epa.gov/sites/production/files/2016-04/documents/20151001healthfs.pdf>

5 http://oilandgasthreatmap.com/wp-content/uploads/2016/06/Gasping-for-breath_PR.pdf

6 <https://www.epa.gov/sites/production/files/2016-04/documents/20151001healthfs.pdf>

7 <http://oilandgasthreatmap.com/threat-map/oklahoma/>

8 <https://www.epa.gov/sites/production/files/2016-04/documents/20151001healthfs.pdf>

On the Ground In Oklahoma

A team recently went out in Oklahoma to document the impacts of methane pollution on communities across the state. They were able to depict the methane pollution coming from facilities across the state, using a Forward Looking Infrared (FLIR) camera, special technology created to visualize methane and harmful air pollution from oil and gas facilities that is normally invisible to the naked eye.

Much of the data gathered by the team is concerning. There are over 15,000 people living within a half mile of new wells, or wells built since 2013 that should be covered by the EPA rules, in the state of Oklahoma, almost 4,000 of whom are children under the age of eighteen.⁹ In Omega, Oklahoma (Kingfisher County) the team [filmed](#) a well spewing methane into the air less than a mile from a high school.

Shelley Schmidt lives with her family just south of Stillwater, Oklahoma in Payne County. Already surrounded by at least 15 wells, pipelines and other oil and gas infrastructure, at least six new facilities have been built within two miles of her home since October 2015.

Oil and gas pollution started taking a toll on Shelley's health in 2012, right after her birthday.

"I already had a couple of autoimmune problems, but after the increased well production around our home, my autoimmune problems just skyrocketed. I found it hard to breathe and felt very fatigued."

Shelley's entire family has been impacted by the pollution, including her three young children who have grown up surrounded by drilling and fracking.

"One of my daughters also has breathing issues and increased allergies to the environment and food.



My son's earlobes would burn after being outside and the pediatrician couldn't explain why. "

"My husband's liver enzymes went up and various tests couldn't explain why." It is clear to Shelley that the rampant oil and gas pollution is causing widespread health issues for her and her family.

Oklahoma does not have state level safeguards to curb methane pollution from oil and gas activities, which is why federal standards like the EPA and BLM rules are vital to protecting public health and keeping families and children healthy. For example, if the EPA rule is suspended, or even worse overturned, 99,000 Oklahomans, including vulnerable children, who live in counties in the threat radius will continue to be at risk for serious health impacts including respiratory issues, cancer risk, and even death.



Earl Hatley is a Cherokee veteran and a landowner in Payne County, Oklahoma. “I’ve been an Okie all my life. I own 15 acres of land and a house in Payne County which is in North Central Oklahoma where the earthquakes are.”

“All the way around that mile section are wells. And so depending on wind direction, I’ve got every direction, especially now that they’re drilling the BLM land.”

Living in a home surrounded by oil and gas drilling took a serious toll on Earl’s health. Earl moved east of Tulsa where there is less drilling and he can breathe easier. However, when he returns to Payne County, his symptoms return with him.

“I get the fumes... first I get the headache and my head really starts hurting, and then my eyes start to close and then my chest tightens up and then I just start getting nauseated and dizzy and I have to get out of there. If I don’t get outta there, I don’t know what would happen.”



Casey Camp-Horinek is a Ponca Tribal Councilwoman from the Ponca Nation in Northern Oklahoma. Casey is a great-grandmother and a community leader. As oil and gas development continues to encroach on the lives of people across Oklahoma, Casey has a growing concern both about the health of her own children and grandchildren, and those in her community.

“We're gonna do everything we can to hold the Bureau of Indian Affairs, the Bureau of Land Management to account for this, but also the EPA. All of these have failed in their federal trust responsibility to the indigenous people here.”

In July 2017, Casey travelled to Washington, D.C., with hundreds of other advocates, so she could speak out in favor of strong Environmental Protection Agency rules to limit methane and related oil and gas air pollution.

“The extractive industries are taking a toll on my people. We’re having asthma events that are affecting up to 40,000 of our children a year.”

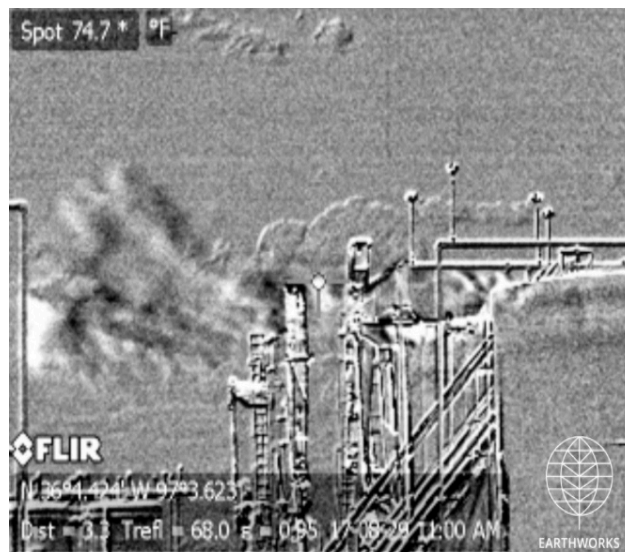
Why We Need EPA and BLM's Oil and Gas Pollution Standards

It's clear that Oklahomans and Americans alike need EPA's and BLM's rules to protect them from methane and other harmful air pollution resulting from oil and gas activities. Residents across Oklahoma are already paying the price for oil and gas leaking and venting, and they will continue to do so if we get rid of our vital pollution safeguards. Oil and gas industry pollution is dangerous; we know if the federal pollution standards are suspended or repealed, millions across the country will face the same unfair health challenges already impacting Native Americans in the region.

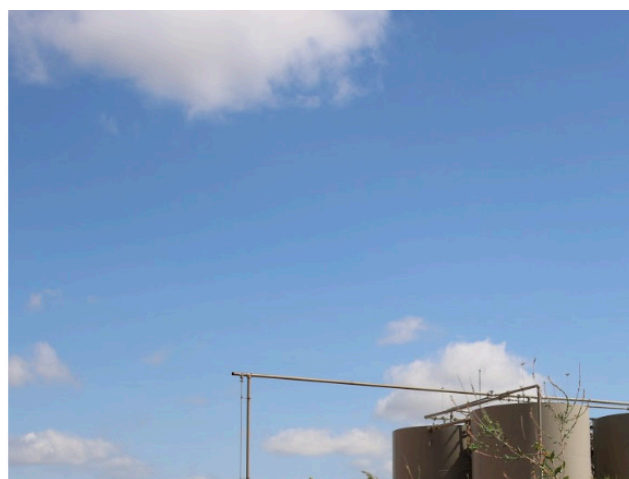
Appendices

The following are side-by-side visual comparisons of wells under NSPS and BLM rule jurisdiction. On the left are images of methane releases, which to the naked eye, are invisible. On the right are images of the same methane releases using Forward-Looking Infrared (FLIR) technology, which captures and depicts the methane gas as it is released into the atmosphere.

White Star Petroleum Duncan Well Site in Stillwater, Payne County, OK (NSPS)



Newfield Exploration Lori Well Site in Loyal, Kingfisher, OK (NSPS)



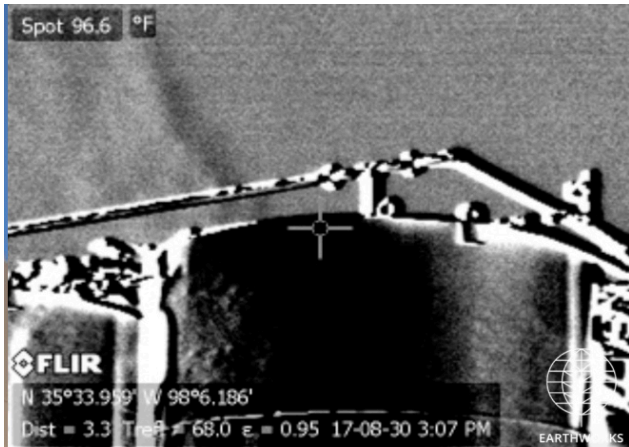
Newfield Exploration Channel Well Site in Omega, Kingfisher County, OK (NSPS)



Newfield Exploration Jan Well Site in Loyal, Kingfisher County, OK (NSPS)



Devon Energy Lemke Well Site in Calumet, Canadian County, OK (NSPS)



Cimarex Phillips 2-3 34H Well Site in Geary, Canadian County, OK (BLM)



Cimarex Phillips 9-10-11 34H Well Site in Geary, Canadian County, OK (BLM)

