

# The Breathtaking Lack of Oversight for Air Emissions From Animal Farms

*We know livestock farms pollute the air—so why don't we know how much?*

By Leah Douglas *The Nation* 12/20/19 <https://www.thenation.com/article/air-emissions-environment/>

**F**arm pollution typically makes the news only when catastrophe strikes: A hurricane hits North Carolina and washes hog manure into neighboring homes, or the dead zone in the Gulf of Mexico grows due to fertilizer runoff into the Mississippi. But every day, the largest animal farms release air pollution, including noxious gases from livestock manure, that can harm the health of nearby residents and contribute to climate change.

Despite the risks posed by waste-related emissions like ammonia and hydrogen sulfide to human health and the environment, the federal government does not know how much air pollution our country's largest farms cumulatively produce. And as of June, the Environmental Protection Agency and Congress have together exempted a majority of those operations from complying with federal air pollution laws.

Those exemptions, facilitated in part by Trump appointees at the EPA and a Republican-controlled legislature, are the culmination of decades of dispute between environmental advocates, the agriculture industry, and regulators over how to manage farm air pollution. And they mirror the Trump administration's deregulatory, industry-friendly approach to air emissions and pollution in other industries.

The EPA regulates air emissions, including those from farms. Yet the agency's data on the nation's largest farms—concentrated animal feeding operations (CAFOs), defined as operations that house hundreds or thousands of animals—has “pervasive gaps,” according to a “CAFOS: What We Don't Know Is Hurting Us,” a recent report from the Natural Resources Defense Council (NRDC).

Using data that the EPA has collected on CAFOs, researchers found spotty information about where the country's largest farms are located, what they raise, and other details about their practices. More than half of the 17,000-plus CAFOs that the EPA estimated existed in 2012 are “completely unaccounted for” in the agency's data, the report says.

Valerie Baron, an adviser on the report and staff attorney at the NRDC, said this lack of data undercuts the enforcement of air quality laws: “It's really hard to protect people when you don't know where the dangerous things are, how big they are, or how many of them there are.”

And even if more comprehensive data existed, there is virtually no federal oversight of air emissions from these animal farms. At one time, the EPA was moving toward developing a regulatory process for farm air emissions. But that effort has now been underway for the better part of two decades and is far behind schedule.

When people are exposed to emissions from farms, studies show that they can disproportionately suffer from asthma, lung disease, mood disorders, and other conditions. Meanwhile, methane and nitrous oxide, which are emitted from animal manure, are significantly more potent greenhouse gases than the more commonly maligned carbon dioxide. Experts who work on this issue say that given their serious risk to human health and the environment, emissions from farms should be monitored and regulated like those from other polluting industries.

“You have petrochemical companies, companies that are burning coal, natural gas, companies that produce other types of waste products that impact air quality, our sewage treatment plants—of course, [they] have to comply

with the Clean Air Act,” said Dr. Sacoby Wilson, an associate professor at the University of Maryland School of Public Health, who has studied livestock farms and the impact of air pollution on communities.

But the livestock industry is exempted from complying with federal air laws, “and they emit some of the same pollutants,” he said. “That’s the problem.”

## WHAT’S THE HARM IN A BAD SMELL?

According to the EPA’s definition, a large CAFO holds at least 1,000 head of cattle, 30,000 chickens, or 2,500 hogs. Yet there are CAFOs that hold many times more animals than that. One dairy CAFO in Oregon that sources milk for Tillamook cheese houses 70,000 cows. A modern poultry barn can hold over 45,000 chickens at a time, and many operations contain four or eight barns. Between 2011 and 2017, more than 1,400 new, large CAFOs were established, bringing the total number of CAFOs to just under 20,000.

All those animals produce a lot of manure—about 13 times more than was produced by the entire US population in 2012. Some of that manure can be used to fertilize crops, but animal farms generate far more waste than can be sustainably applied to soil. Along with running off into waterways and threatening to overflow the open-air lagoons where it is stored, all that waste generates large amounts of air pollution.

And the result is far worse than just a bad smell. Air emissions from manure are comprised of a mix of volatile organic compounds, hydrogen sulfide, ammonia, and particulate matter, each of which poses a risk to humans. Exposure to ammonia or hydrogen sulfide can lead to coughing, scarring of the airways, lung damage, and disease. The accumulation of particulate matter in airways has been linked to asthma and bronchitis. The brunt of those health risks falls most heavily on the people who live and work in close proximity to CAFOs, often low-income people of color.

In one study, researchers found that children attending school near a CAFO in Iowa had a “significantly increased prevalence” of asthma compared to a control group. Another study found that some 30 percent of CAFO workers

developed asthma, bronchitis, or other air-quality-related ailments. Even in the absence of serious disease, ongoing exposure to poor air quality and malodorous conditions can lead to headaches, nausea, mood disorders, and other symptoms.

Farm pollutants also contribute to climate change. Animal farms are responsible for more than 7 percent of the US's greenhouse gas emissions, according to the Centers for Disease Control and Prevention. Nearly 40 percent of livestock's greenhouse gas output is attributable to methane from cattle. Methane and nitrous oxide, which are emitted by manure, are significantly more potent greenhouse gases than carbon dioxide.

Yet, despite the harms associated with farm air pollutants, most of the nation's largest farms enjoy exemptions from the three laws that would govern their emissions: the Clean Air Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Emergency Planning and Community Right-to-Know Act (EPCRA).

Farms received an exemption from CERCLA in 2018, when Congress passed the Fair Agricultural Reporting Method (FARM) Act. CERCLA requires polluters to report discharges of hazardous waste, including hydrogen sulfide and ammonia, to federal regulatory bodies. The legislation was introduced and supported by elected officials with ties to agribusiness.

In June, the EPA adopted a rule exempting farms from reporting under the EPCRA, which is similar to CERCLA but covers reporting to local and state regulatory bodies. Both exemptions were applauded by the National Pork Producers Council, National Cattlemen's Beef Association, and other industry groups.

And because of a deal that the EPA made with the majority of the nation's largest livestock farms in the early 2000s, the agency is not enforcing certain provisions of the Clean Air Act, CERCLA, and EPCRA against most large livestock farms.

Brent Newell, a senior attorney with the nonprofit law firm Public Justice who specializes in air pollution litigation, said that with all of these exemptions, there's now "very little monitoring of odor or air emissions whether it's state law or federal law."

Experts who favor stronger regulation of air emissions argue that this lack of oversight heightens health risks to communities, particularly the low-income communities and communities of color where CAFOs are often located.

"Health departments and environmental departments in states, and of course the federal counterparts, really should be taking responsibility for figuring out what's in the air, especially when it's making people sick," said the NRDC's Baron. "And especially when these facilities are cited in poorer areas or otherwise under-resourced areas, it's extra important that the government come and provide those resources."

## **"KICKING THE CAN DOWN THE ROAD"**

The EPA once intended to beef up its regulation of air pollution from farms.

In 2004, the agency launched a "groundbreaking" \$15 million study to collect data that would allow it to build methodologies for estimating farm air emissions. Those estimates could then be used to shape how and whether farms would be regulated under the Clean Air Act, EPCRA, and CERCLA. The study was funded by livestock industry groups—the National Pork Board, National Milk Producers Federation, United Egg Producers, and National Chicken Council—as part of a 2005 compliance agreement with the EPA.

It may seem odd that the livestock industry would fund such a study, given its general aversion to regulatory oversight. But the EPA sweetened the deal: Farms that participated in the study would receive immunity from civil action by the EPA under certain provisions of the Clean Air Act, EPCRA, and CERCLA for the duration of the study. Participating CAFO owners and operators chipped in anywhere from \$200 to \$100,000, depending on the size and number of their facilities to receive this immunity.

At the time of the study's launch, 90 percent of the country's largest livestock farms had bought in—nearly 14,000 dairy, hog, egg-laying hen, and broiler farms in 42 states. Those participating farms now represent about 70 percent of the largest livestock farms in the country.

Ultimately, just two dozen of those 14,000 farms were selected to participate in the two-year data collection program—but all of them continue to receive regulatory immunity.

Today, more than 15 years after its launch, the EPA has yet to produce any final methodologies for estimating emissions. The EPA's Science Advisory Board rejected an initial version of the methodologies in 2013, and the agency has not yet issued a revised approach.

Environmental advocates say the EPA's delay in completing the study amounts to an intentional giveaway to livestock companies.

“The EPA has been brought to heel by the industry,” said Newell.

Livestock industry groups maintain that they are good environmental stewards and that they should not face further regulations until the EPA's study is complete.

“It is inappropriate to encourage regulation of potential emission pollution sources including livestock farms until the scientific data is fully analyzed,” said Jamie Jonker, vice president for sustainability and scientific affairs at the National Milk Producers Federation.

Cindy Cunningham, assistant vice president of communications at the National Pork Board, said, “The science is vastly more complicated than some environmental advocates believe. Every farm is different and, therefore, emissions can vary. What the science does show is that livestock farms, and hog farms, do not pose nuisance concerns to communities.”

United Egg Producers and the National Chicken Council did not respond to a request for comment.

The EPA's delay in finishing the air emissions methodologies has risen to the attention of its own internal watchdog. In a 2017 report, the agency's Office of the Inspector General wrote that the regulatory immunity granted to participating CAFOs has "remained in effect longer than anticipated," and that other agencies' work on CAFO emissions has "continued to be on hold" without the EPA's methodologies.

An EPA spokesperson said in an e-mail that the delay is due to "technical concerns raised by the [Science Advisory Board]...and due to shifting agency priorities and funding."

The next drafts of the emissions methodologies are now expected in January 2020. But those drafts "may or may not be close to a final [version] depending on the feedback they get," said Richard Jones, who led the team that produced the Inspector General's 2017 report.

For those who work with communities who live near large-scale animal farms, the delay of the EPA study is another obstacle to developing policies that could protect those communities. "The EPA has dropped the ball on regulating CAFOs," said Wilson, from the University of Maryland. "They've been kicking the can down the road for too long."

Yet it's vital to keep pressing for better enforcement, Baron said, "because it's the federal government's job to make sure that states are doing enough to protect their citizens from environmental hazards."

"Even though this EPA has repeatedly turned its back on these communities," she said, "I'm not willing to give up on the idea that the federal government will protect its citizens."