Halloran, Virginia (LARA)

From: Jaclyn[redacted]
Sent: Thursday, April 21, 2022 7:02 AM
To: Halloran, Virginia (LARA)
Subject: Fwd: INSIDE CLIMATE NEWS: A Biomass Power Plant in Rural North Carolina Reignites Concerns Over Clean Energy and Environmental Justice

Follow Up Flag: Follow up
Flag Status: Flagged

Please submit news article as comment for the RNG group.

Thanks

Sent from my iPhone

Begin forwarded message:

> **From:** Jaclyn[redacted]
> **Date:** April 10, 2022 at 5:46:15 PM EDT
> **To:** Jaclyn[redacted]
> **Subject: INSIDE CLIMATE NEWS: A Biomass Power Plant in Rural North Carolina Reignites Concerns Over Clean Energy and Environmental Justice**
>
> **A Biomass Power Plant in Rural North Carolina Reignites Concerns Over Clean Energy and Environmental Justice**
> The plant has applied for a new operating permit. But residents and environmental advocates say pollution from the plant would increase the burden of an already environmentally stressed community.
>
> Read in Inside Climate News: https://apple.news/Ar0-vRMecR3KxSrxhzixmRQ
>
> Shared from Apple News
>
> Sent from my iPhone

insideclimatenews.org

A Biomass Power Plant in Rural North Carolina Reignites Concerns Over Clean Energy and Environmental Justice - Inside Climate News

Aman Azhar

15-19 minutes

A North Carolina power plant that generates electricity from poultry waste and wood chips has touched off a controversy over an operating permit that, if granted, would imperil public health and wellbeing, residents and environmental advocates in the surrounding community say.

Since it started operating in Robeson County in 2015, North Carolina Renewable Power's South Lumberton plant has repeatedly exceeded allowable emissions for carbon monoxide, nitrogen oxide, sulfur dioxide, particulate matter, known as PM2.5, and methane–a potent greenhouse gas. The violations have resulted in more than $58,000 in fines and a dozen non-compliance notices for failing to conduct timely emissions testing and faltering in monitoring and reporting of excess emissions, among other failures.

Now the state Department of Environmental Quality has said that, given the higher emissions levels, the plant should be classified as

a “major source” under the Clean Air Act, which would impose stricter rules and require the company to install the best available technology to lower its emissions rate.

In a public notice, the DEQ indicated that the plant’s application for a major source permit could be approved if certain conditions are met. The plant was temporarily shut down in November 2020, and NCRP said it will not restart until the new permit is granted.

Environmental advocates say that allowing the poultry waste-burning power plant to operate in a community that is already environmentally challenged by pollution goes against state and federal government clean energy policies.

Katie Moore, a public health expert and resident, said during a public hearing that the DEQ held Feb. 21 by teleconference that the NCRP plant is operating in a county that is in the 80th percentile for fine particulate matter pollution and the 91st percentile for air toxics cancer risk in the state, according to Environmental Protection Agency figures. “This permit would make it worse,” Moore said.

Amina Ghaffar, a resident with ancestral ties to the Indigenous Lumbee tribe of North Carolina, said that “Robeson County is tired of being an energy sacrifice zone.” The county is also considered one of the most economically distressed areas in the state, with the highest poverty rate statewide. Native Americans, Blacks and Hispanics make up a majority of county residents.

Carey Davis, executive vice president of Georgia Renewable Power, said in a written statement the company must meet the Best Available Control Technology (BACT) requirements and associated emissions limitations upon issuance of the permit.

“NCRP-Lumberton will not restart operations until the permit is issued and it upgrades the existing emissions control technology and conducts boiler maintenance to meet the BACT requirements in the permit,” Davis said.

In January, North Carolina Gov. Roy Cooper issued an executive order affirming the state’s commitment to a clean energy economy, and announced his plan to achieve net-zero greenhouse gas emissions, create good jobs and protect communities from pollution. Emphasizing the centrality of environmental justice and equity in transitioning to a clean economy, Cooper directed cabinet agencies to take environmental justice into account before taking action.

The governor’s order aligns with the Biden administration’s commitment to address systemic environmental injustice by investing in historically underserved communities.

Advocates have repeatedly asked regulators to hold in-person town halls in addition to remotely-held meetings so that the residents of rural North Carolina can get proper information and share their opinions on issues that determine their health and quality of life.

During the DEQ teleconference, some 40 people, including residents and advocates, pressed state officials to deny the North Carolina Renewable Power plant’s permit and to close it down permanently. One after another, the speakers pointed to the factors that resulted in a series of past violations, including a lack of regulatory oversight, incomplete analysis of the pollutants emitted by the facility and the disproportionate effect of plant emissions on adjacent communities.

A spokesman for the North Carolina Division of Air Quality, Shawn Taylor, said in a written response, “The application and requested permit would bring the facility into compliance with state emissions regulations it was found to be exceeding.” He said the modified permit would allow NCRP increased emissions but also require the facility to comply with additional testing and emissions reporting. “The permit would also allow NCRP to retrofit its existing boilers and install new air pollution control equipment,” he said.

North Carolina adopted a Renewable Energy and Energy Efficiency Portfolio Standard or REPS in August 2007 that required investor-owned utilities in the state to acquire up to 12.5 percent of their energy mix through renewable resources or energy efficiency measures. Under the law, sources of renewable energy were defined as including biomass, such as agricultural waste, animal waste or wood waste, and methane from landfills.

The NCRP plant sold electricity to Duke Energy, one of the largest utilities in the country, headquartered in Charlotte, North Carolina, to meet its renewable energy requirements. In 2018, 300,000 megawatt-hours of the total electric power sold by utility companies to customers in North Carolina was generated from poultry waste.

Advocates said that the state’s backing of biomass and biogas as “renewable” energy has attracted large-scale capital investments in technologies that further entrench primitive waste management practices, without resolving the negative environmental and health effects associated with fossil fuels.

A growing body of research suggests that burning poultry waste releases significantly more toxic emissions than burning coal,

including particulate matter, dioxins, bioaerosols, arsenic and other toxins linked to cardiovascular disease, cancer, respiratory illness and other diseases.

Advocates Press State Regulators

The North Carolina Renewable Power plant was originally built as a 35-megawatt coal-fired power plant that ceased operations in 2009. It's sited on a 13-acre industrial property in the heart of what's known as the "American Broiler Belt," which includes Georgia, Arkansas, Alabama, North Carolina and Mississippi—the top five broiler producing states. North Carolina alone counts more than 5,700 farms raising more than 500 million chickens and turkeys a year.

In 2015, NCRP purchased the idled plant and retrofitted it to burn poultry waste and wood to produce biomass energy as a renewable recycling solution for the expanding poultry industry, which produces more litter than can be recycled as fertilizer. NCRP is a subsidiary of Georgia Renewable Power, which runs a similar power generation plant in Georgia.

The company estimated the plant would burn up to 285,000 tons of poultry waste and wood chips on a yearly basis. When it is in operation, the plant uses two boilers to generate steam to produce electricity and runs four belt dryers to reduce the moisture content of wood chips. Each belt dryer has the capacity to produce 100 tons an hour of wood chips.

advertising. We rely on donations from readers like you to keep going.

Donate Now

Under its current permit, called a “minor source” permit, the facility has a yearly emissions limit of 250 metric tons of pollutants including carbon monoxide, sulfur dioxide and nitrogen oxides. The plant is also allowed to emit almost 439,000 metric tons of greenhouse gasses and 1,224 tons of carbon monoxide a year, according to the North Carolina Division of Air Quality’s review of NCRP’s permit application, in addition to other toxic pollutants.

Patrick Anderson, an attorney with the national nonprofit Environmental Integrity Project (EIP), said the company initially acquired the “minor source” air permit, which has less stringent regulatory controls and requirements under the Clean Air Act, based on its claim that burning poultry waste and wood would lower emissions. “Turns out they were way wrong,” Anderson said.

After numerous violations, state regulators in 2017 said the NCRP plant should be classified as a “major source” instead, a designation that imposes stricter requirements, including the installation of the best available technology to lower emissions.

Anderson submitted detailed comments to the DEQ opposing the permit in a Feb. 24 letter, signed by 17 environmental groups. Among other things, the letter said that NCRP had omitted or downplayed the plant’s emissions levels of hazardous air pollutants or HAPs, chemicals known to cause cancer, respiratory and neurological problems, among other serious health impacts.

In its permit application, the company listed two out of six of these

hazardous air pollutants—methanol and formaldehyde—as present in emissions produced by the belt dryers in the plant, the environmental advocates noted in the letter. Research suggests that wood drying emits another four hazardous air pollutants namely acrolein, acetaldehyde, phenol and propionaldehyde, the letter added.

The advocates also criticized the proposed permit as inadequate in its requirements for monitoring of hazardous emissions. For example, the advocates said, emissions monitoring for carbon monoxide, sulfur dioxide and nitrogen oxides under the permit is based on average levels registered over a 30-day period.

“A 30-day rolling average is far too long,” the letter said, citing regulatory requirements under National Ambient Air Quality Standards (NAAQS). The absence of shorter-term monitoring would mean that spikes in harmful emissions over hours or days that constitute violations might be overlooked, according to the letter.

Cumulative Impacts Outweigh Benefits

To make matters worse, advocates say, the NCRP plant is located on a recognized brownfield site, meaning one contaminated with hazardous substances, pollutants or contaminants. As a previous coal-fired plant, the facility’s soil and groundwater are contaminated with coal ash and coal residue dumped on the site by the previous owner. There are some 450,000 brownfields in the United States.

A 2015 environmental assessment of the site found groundwater contamination from metals including arsenic, cobalt and vanadium.

The assessment also detected chemicals known as total petroleum hydrocarbons and diesel range organics, as well as excessive levels of the VOC toluene in the soil samples tested for contaminants.

Many of these chemicals have harmful effects. According to the Centers for Disease Control and Prevention (CDC), arsenic is known to affect the skin, the digestive system, the liver, the nervous system and the upper respiratory tract. Excessive cobalt exposure can lead to cardiovascular, developmental, upper respiratory and blood-related problems. And toluene exposure can have immunological and neurological effects.

According to DEQ's community mapping system, which tracks industrial and contaminated sites in North Carolina, there are 21 such sites within the one-mile radius of the NCRP plant. These include coal ash fills, solid waste landfills, a hazardous waste site, a couple of inactive hazardous sites and three plants that hold permits to release industrial emissions. Expand that to a two-mile radius, and the number balloons to about 100.

The NCRP plant also sits in a 100-year floodplain, and areas of the site flooded during recent hurricanes. In the event of flooding, industrial materials stored on-site would further pollute groundwater, advocates say.

Robeson was ranked as the least healthy county in North Carolina in March 2020, according to the County Health Rankings Report. The county has a significantly higher rate of premature death compared to state and national rates.

The Agency for Toxic Substances and Disease Registry has linked poor air quality to four leading causes of premature death,

including cancers, heart disease, stroke and chronic lower respiratory diseases like emphysema, chronic bronchitis and asthma.

A 2020 national study, by a researcher at the U.S. Department of Agriculture and the Economic Research Service, found links between increases in livestock production and infant mortality.

The study, published in the American Journal of Agricultural Economics, noted that “Previous research in North Carolina has found associations between living in proximity to industrial animal operations and wheezing in children, stress, negative mood, limiting of social activities, and other health-related outcomes.”

Neighboring counties to Robeson, like Montgomery County and Sampson County, had greater hospitalization rates for diabetes and cardiovascular disease than the state average. Sampson County, which has the second-highest density of hogs in the state, recorded a higher asthma hospitalization rate, according to the study.

Dr. Dana Powell, an associate professor of environmental anthropology at Appalachian State University, said that Robeson County has carried the burden of industrial development for decades, with no economic benefits and all of the environmental and social harms. She added that the county is an example of what the National Environmental Policy Act calls disproportionately impacted communities.

“I’ve studied the coal fired power plants in the Southwest and we know that these dirty plants need to be decommissioned and dismantled rather than transitioned into even dirtier facilities in the name of renewable and green power,” Powell said, adding that this

was not a good transition strategy.

For North Carolina's environmental quality department to believe that it only needs to be concerned with the facility's atmospheric emissions ignores indirect impacts and environmental justice, said Dr. Ryan Emanuel, an associate professor at Duke University. He said regulators must consider how much a facility degrades local air quality through activities such as diesel traffic to the site. "It highlights just one of the blind spots that regulators incur when they ask how far away from a stack might people experience harmful concentrations of pollutants," Emanuel said.

By narrowly focusing on the emissions from the facility, he added, the department ignores the broader purpose of environmental justice policies, which seek to eliminate systemic inequities caused by polluting industries, like poultry production and associated waste management practices.

"DEQ cannot claim to adhere to principles of environmental justice if it continues to authorize activities that prop up the harmful status quo in Robeson and surrounding counties," Emanuel said.

Freelancer

Aman Azhar is a Washington, D.C.-based freelance journalist who covers environmental justice for Inside Climate News. He has previously worked as a broadcast journalist and multimedia producer for the BBC World Service, VOA News and other international news organizations, reporting from London, Islamabad, the United Arab Emirates and New York. He holds a graduate degree in Anthropology of Media from University of London's School of Oriental and African Studies (SOAS) and an MA in Political Science from the University of the Punjab, and is the recipient of the Chevening scholarship from the UK government and an academic scholarship for graduate studies from the Australian government.

Halloran, Virginia (LARA)

From: Jaclyn[redacted]
Sent: Thursday, April 21, 2022 7:04 AM
To: Halloran, Virginia (LARA)
Subject: Fwd: Dangerous PFAS Chemicals Are in Your Food Packaging - Consumer Reports

Follow Up Flag: Follow up
Flag Status: Flagged

Please submit article as public comment for the RNG group. If we look at processing food waste-this concern will impact the application/ handling of byproducts.

Sent from my iPhone

Begin forwarded message:

> **From:** Jaclyn[redacted]
> **Date:** March 26, 2022 at 7:59:06 AM EDT
> **To:** Jaclyn[redacted]
> **Subject: Dangerous PFAS Chemicals Are in Your Food Packaging - Consumer Reports**
>
> https://www.consumerreports.org/pfas-food-packaging/dangerous-pfas-chemicals-are-in-your-food-packaging-a3786252074/
>
> Sent from my iPhone

consumerreports.org

Dangerous PFAS Chemicals Are in Your Food Packaging

By Kevin Loria

13-17 minutes

Photo: Ben Goldstein

Updated March 24, 2022

Data visualizations by Andy Bergmann

In 1938, a 27-year-old chemist named Roy Plunkett stumbled across a new type of chemical, one with a bond so strong it would end up sticking around long after he died—in fact, almost forever.

Today, this practically unbreakable compound, created when the

elements carbon and fluorine are fused, can be found in the air and the water, as well as in our bodies, our food, and our homes. That's because in the decades since Plunkett's discovery, thousands of substances that rely on this type of carbon-fluorine bond have been created and added to a wide variety of products to make them resistant to heat, water, oil, and corrosion.

These per- and polyfluoroalkyl substances (PFAS), known as "forever chemicals," can be found not only in nonstick pans and waterproof gear but also in the grease-resistant packaging that holds your food from takeout chains and supermarkets. Packaging made with PFAS often resembles paper or cardboard—a seemingly virtuous alternative to plastic—but salad dressing and fry oil do not leak through.

In recent decades, PFAS exposure has been linked to a growing list of problems, including immune system suppression, lower birth weight, and increased risk for some cancers. This raises alarms about the use of these compounds, especially in items such as burger wrappers and salad bowls.

"We know that these substances migrate into food you eat," says Justin Boucher, an environmental engineer at the Food Packaging Forum, a nonprofit research organization based in Switzerland. "It's clear, direct exposure." That's especially likely when food is fatty, salty, or acidic, according to a 2021 review in the journal Foods. Some research even suggests that PFAS levels are higher in people who regularly eat out.

Another concern: When packaging is tossed into the trash it can end up in landfills, and PFAS can contaminate water and soil, or it is incinerated, and PFAS can spread through the air.

Health and environmental advocates are pushing for PFAS use to be restricted, especially in items such as food packaging. In response, some fast-food and fast-casual restaurants, as well as several grocery stores, say that they have taken steps to limit PFAS in their food packaging or that they plan to phase it out.

To see how often PFAS are still found in food containers, Consumer Reports tested more than 100 food packaging products from restaurant and grocery chains. We found these chemicals in many types of packaging, from paper bags for french fries and wrappers for hamburgers to molded fiber salad bowls and single-use paper plates. PFAS were in some packaging from every retailer we looked at.

That included many fast-food chains, such as McDonald's, which says it plans to phase them out by 2025, as well as Burger King and Chick-fil-A, both of which publicly committed to reducing PFAS in their packaging after being told of CR's test results. Chains that promote healthier fare, such as Cava and Trader Joe's, also had some packaging that contained PFAS, CR's tests found. We even found the chemicals in packaging from places that claimed to already be moving away from PFAS, though those levels were often lower than at other retailers.

"We know from our testing that it is feasible for retailers to use packaging with very low PFAS levels," says Brian Ronholm, director of food policy at CR. "So the good news is there are steps that companies can take now to reduce their use of these dangerous chemicals."

Identifying the exact type of PFAS in a product is complex: There are more than 9,000 known PFAS, yet common testing methods

can identify only a couple dozen.

So CR tested products for their total organic fluorine content, which is considered the simplest way to assess a material's total PFAS content. That's because all PFAS contain organic fluorine, and there are few other sources of the compound, says Graham Peaslee, PhD, a professor of physics, chemistry, and biochemistry at the University of Notre Dame in Indiana, who has studied PFAS in food packaging.

Another complication: PFAS is used so widely—found in ink on food containers, recycled paper, machines that make packaging, and more—that it often shows up in products unintentionally.

Scientists and regulators are still debating what level of organic fluorine indicates intentional use. California has banned intentionally added PFAS; starting in January 2023, paper food packaging must have less than 100 parts per million organic fluorine. Denmark has settled on 20 ppm as that threshold. CR's experts support the 20-ppm limit.

"If they can get to 100 ppm, they should be able to get to 20 ppm," Peaslee says. "Lower is always the ultimate goal."

CR tested multiple samples of 118 products and calculated average organic fluorine levels for each. Overall, CR detected that element in more than half the food packaging tested. Almost a third—37 products—had organic fluorine levels above 20 ppm, and 22 were above 100 ppm.

Among the 24 retailers we looked at, nearly half had at least one product above that level, and most had one or more above 20 ppm. But almost all also had products below that amount. For example, while the two products with the highest average levels

came from Nathan's, the chain also had four products below 20 ppm. Nathan's told CR that it was redoing its packaging and had eliminated the high-level items, as did Chick-fil-A, which had the item with the next highest level in CR's tests.

CR's test results are not representative of all the packaging from a retailer, and the packaging may have changed since CR conducted these tests.

We looked at retailers that claimed to be phasing out PFAS, including Cava, Chipotle, Panera Bread, Sweetgreen, and Whole Foods Market. All 13 of the products the companies said had reduced PFAS still had some detectable organic fluorine, and seven were above 20 ppm. They ranged from a Whole Foods soup container with 21 ppm organic fluorine—the only Whole Foods item to top the 20-ppm limit—to a paper bag for pita chips from Cava with 260 ppm.

See Full Results Below

In response to questions from CR, companies stressed that with PFAS so common in the environment, it's almost impossible to eliminate them entirely. Sweetgreen, for example, said, "We may have trace amounts of fluorine in our bowls. Unfortunately, PFAS are a widespread problem and are present in everyday life from tap water to air to soil." Whole Foods said the company "does not make PFAS-free claims but has strived to prevent intentionally added PFAS in packaging." Panera and Chipotle also said their goal was to avoid packaging with intentionally added PFAS.

Cava said that supply chain problems had slowed its "transition to eliminating added PFAS." The company said that it hoped to complete that process by the end of 2022 and that it had updated

its public statements to reflect the new timeline.

Michael Hansen, PhD, senior scientist at CR, acknowledges that trace amounts of PFAS in food packaging may be inevitable. And that's why he says that "no company should tell consumers that their products are 100 percent free of PFAS." But he also says CR's tests show that getting to very low levels is possible and should be a goal for everyone.

CR tested a subset of about 50 products—including those with the highest organic fluorine levels—to see which specific PFAS they contained. That test, regularly used by industry, regulators, and researchers, is limited: It can detect only 30 of the thousands of known PFAS. Still, that test provided several key insights.

First, one of the PFAS we found at the highest concentrations is a compound called PFBA, which may accumulate in the lungs and has been linked to more severe cases of COVID-19.

In addition, the testing detected two PFAS compounds that, because of their known risks, are no longer manufactured in the U.S. One of them, PFOA, was the most frequently detected compound, and the other, PFOS, was the fifth most common. "Manufacturers could unknowingly still be using the compounds, or they could be using materials produced overseas," Hansen says. Another possibility: The compounds are now so widespread in the environment that they keep showing up even after production of them in this country stopped.

Finally, the test for specific PFAS found that those 30 compounds accounted for only a tiny fraction—less than 1 percent—of the organic fluorine found in the products. That shows that the vast majority of PFAS are not identified with commonly used tests,

Peaslee says. And it underscores an ongoing argument about whether the compounds should be regulated as a group or on a case-by-case basis.

The Food and Drug Administration favors regulating them individually, it told CR, because concerns about one specific PFAS might not be "indicative of concerns for all chemicals classified as PFAS."

But CR's Hansen says that when regulators try to restrict specific compounds, such as PFOA, manufacturers may simply switch to others—and can decide on their own to call new compounds safe, without independent verification.

Admittedly, steering clear of PFAS in food packaging isn't easy. After all, though CR's tests identify some products in restaurants and grocery stores that have higher amounts, it's not practical, for example, to say, "I'd like my Big Mac in a PFAS-free wrapper, please."

Still, CR's findings provide another reason to limit how often you eat takeout food. And there are other steps you can take to limit your exposure to PFAS, as well as some measures that regulators and industry can take.

Favor retailers that have pledged to reduce PFAS. While their levels are not zero, PFAS levels in food packaging at those retailers tend to be somewhat lower. And giving them your business supports efforts to address the problem.

Don't assume products with environmentally friendly claims are PFAS-free. We detected at least some organic fluorine in every product with those kinds of claims. Several even had levels above 100 ppm. That included a McDonald's Big Mac container

labeled as using paper from “responsible sources,” a focaccia bag from Sweetgreen labeled “EcoCraft,” and paper plates from Stop & Shop labeled as “100% compostable.” (After being contacted by CR, Stop & Shop said it was removing the plates from shelves.) To be certified as compostable by the Biodegradable Products Institute, products are supposed to have less than 100 ppm organic fluorine. Hansen says any PFAS in compostable products is concerning because of how long the compounds last in the environment.

Transfer takeout food out of its packaging when you can. The longer food sits in packaging, the more likely it is that PFAS will migrate to your food. That may be especially important if your food is warm and if it comes in paper bags or molded fiber bowls, which had the highest levels in CR’s tests. Ideally, put food into foil, silicone, or glass containers, which typically don’t have PFAS.

Don’t reheat food in its original packaging. That could make it easier for PFAS to get into food.

Test your water for PFAS. If the level is high, consider using a water filter. Learn how to test and treat your drinking water.

Limit exposure from other sources. The biggest risk from PFAS is from cumulative exposure over time. So try to limit the use of other products known to contain PFAS, including water-repellent clothing and stain-resistant carpeting.

Even if you take all those steps, you will still be exposed to PFAS, precisely because it is so ubiquitous. “That’s why CR and other advocates support banning PFAS in food packaging, and restricting its use in other products, too,” says Ronholm, CR’s food policy expert.

Other experts say that, especially with food packaging, PFAS chemicals are clearly not essential. “We are paying enormous amounts of money to clean up contamination from PFAS,” but it would be better to ban them from food packaging and other unnecessary uses to begin with, says Liz Hitchcock, director of Safer Chemicals Healthy Families, a consumer advocacy group.

Ronholm and others also say the federal government should regulate PFAS as a group. “Trying to ban individual PFAS is an impossible game of whack-a-mole,” he says. “As soon as one is addressed, industry comes up with another.”

The Environmental Protection Agency now has guidance levels on just two PFAS—PFOS and PFOA—and just in drinking water. And even those are too high, says Philippe Grandjean, PhD, a professor of Environmental Medicine at the University of Southern Denmark and an expert on PFAS health risks.

In addition, research from the EPA and elsewhere confirms that many newer PFAS chemicals, like their older cousins, are likely to remain in the environment almost indefinitely and to pose health risks, especially to infants.

“The next generation is being exposed to these toxic compounds at the most vulnerable time period in their development,” Grandjean says.

Says Ronholm: “It’s long past time we got PFAS out of products, our water, and our food.”

Editor’s Note: Testing for this project was supported by the Forsythia Foundation, which promotes healthier people and environments by reducing harmful chemicals in our lives.

This article also appeared in the May 2022 issue of Consumer Reports magazine.

This article has been updated to include information that Burger King publicly committed to reducing PFAS in its food packaging after being told of CR's results.

Halloran, Virginia (LARA)

From: Jaclyn[redacted]
Sent: Tuesday, May 3, 2022 6:13 AM
To: Halloran, Virginia (LARA)
Subject: RNG Public Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning

Please submit article as public comment for the RNG workgroup.

Thank you

Sent from my iPhone

Begin forwarded message:

> **From:** Jaclyn[redacted]
> **Date:** May 1, 2022 at 8:04:17 AM EDT
> **To:** Jaclyn[redacted]
> **Subject: REUTERS: Satellites detect California cow burps, a major methane source, from space**
>
> **Satellites detect California cow burps, a major methane source, from space**
> Satellites have detected methane emissions from belching cows at a California feedlot, marking the first time emissions from livestock - a major component of agricultural methane - could be measured from space.
>
> Read in Reuters: https://apple.news/AlZFB8E3uSsGiPc83ohJWWA
>
> Shared from Apple News
>
> Sent from my iPhone

reuters.com

Satellites detect California cow burps, a major methane source, from space

April 30, 202211:56 AM EDTLast Updated 3 days ago

3 minutes

Healthy Holstein dairy cows feed at a farm in central Washington in this December, 24, 2003 photo. REUTERS/Jeff Green/Files/File Photo

WASHINGTON, April 29 (Reuters) - Satellites have detected methane emissions from belching cows at a California feedlot, marking the first time emissions from livestock - a major component of agricultural methane - could be measured from space.

Environmental data firm GHGSat this month analyzed data from its satellites and pinpointed the methane source from a feedlot in the agricultural Joaquin Valley near Bakersfield, California in February.

This is significant, according to GHGSat, because agricultural methane emissions are hard to measure and accurate measurement is needed to set enforceable reduction targets for the beef-production industry.

GHGSat said the amount of methane it detected from that single feedlot would result in 5,116 tonnes of methane emissions if sustained for a year. If that methane were captured, it could power over 15,000 homes, it said.

Agriculture contributes 9.6% to U.S. greenhouse gas emissions, according to Environmental Protection Agency (EPA), and about 36% of methane emissions, mostly from livestock.

The Biden administration late last year announced its plan to crack down on methane emissions from the U.S. economy.

The EPA unveiled its first rules aimed at reducing methane from existing oil and gas sources that require companies to detect and repair methane leaks. The Agriculture Department rolled out a voluntary incentive program for farmers.

At last year's climate talks, more than 100 countries pledged to cut methane emissions by 30% and to halt and reverse deforestation by 2030. Much of this reduction would need to come from the livestock industry, according to the U.N. food agency, which said that livestock accounts for 44% of man-made methane emissions.

Several methods to reduce livestock methane emissions are being tested, including adding seaweed to cattle diets.

GHGSat provides its data to the United Nations' International Methane Emissions Observatory program.

Register now for FREE unlimited access to Reuters.com

Reporting by Valerie Volcovici Editing by Bill Berkrot

Our Standards: The Thomson Reuters Trust Principles.

Halloran, Virginia (LARA)

From: Jaclyn[redacted]
Sent: Tuesday, May 3, 2022 6:15 AM
To: Halloran, Virginia (LARA)
Subject: RNG Public Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Please submit as public comment for RNG. Using the oil flares that exist today- could provide an existing solution.

Sent from my iPhone

Begin forwarded message:

> **From:** Jaclyn[redacted]
> **Date:** May 1, 2022 at 8:07:35 AM EDT
> **To:** Jaclyn[redacted]
> **Subject: THE HILL: Oil and gas industry waste opens door for methane mitigation**
>
> **Oil and gas industry waste opens door for methane mitigation**
> We have the tools and technology to cut methane waste and pollution.
>
> Read in The Hill: https://apple.news/AP5K5Ms1xTvKw9M1Zw5HvSw
>
> Shared from Apple News
>
> Sent from my iPhone

thehill.com

The Hill

Isaac Brown, opinion contributor

5-6 minutes

Right now, energy security is at the top of everyone's mind, as the demand for natural gas and the influence of Russia on European energy markets is all too real. That global instability is also creating a surge in energy prices to record highs, which hits all of us in our pocket books.

Despite the pressure on energy markets and consumers right now, inefficiencies in the oil and gas industry lead to the needless waste of $2 billion dollars worth of natural gas through the venting, flaring and leaking of methane.

This wasted gas represents enough to heat 10 million homes in America for a year. Taxpayers bear a heavy burden as methane waste on federal lands alone costs taxpayers $50 million in federal revenue each year — funds that are sorely needed for infrastructure investments and other priorities.

Fortunately, there is a path forward — and one that will create lucrative, high-paying jobs in the methane mitigation industry. The Environmental Protection Agency (EPA) and the Bureau of Land Management (BLM) must follow the lead of states like Colorado and New Mexico, and enact strong protections against methane

pollution that ban routine flaring and require regular inspections at small, leak-prone wells.

Wasted methane also presents a threat to our climate. Methane is a potent greenhouse gas with more than 80 times the warming power of carbon dioxide in the near term. This is alarming, considering new data from the United Nations Intergovernmental Panel on Climate Change (IPCC) confirming that we must take action to drastically reduce methane emissions.

Emissions at oil and gas sites also jeopardize the health and safety of workers as well as communities living closest to development. Other pollutants released alongside methane, such as benzene, can worsen asthma, cause cancer, cause immune system damage and even developmental problems in children.

The good news is that we have the tools and technology to cut methane waste and pollution — and states like New Mexico offer a blueprint for federal action.

Earlier this month, New Mexico approved rules that will increase required monitoring and reporting at oil and gas sites and drastically reduce methane emissions. The new safeguards require commonsense standards like regular inspections of small, leak-prone wells and build on protections enacted last year which banned routine flaring. Both of those solutions are something leading operators are already putting into practice in the field.

These rules are a win for communities, a win for local economies, and even for oil and gas producers who are able to bring more natural gas to market and increase revenue. Now, the methane mitigation industry is ready to support this effort at the federal level.

Meanwhile, the methane mitigation industry is growing rapidly: Manufacturing in the methane mitigation sector grew by 33 percent in less than a decade, and services firms grew 90 percent in the last five years.

These firms are adding new U.S. based locations, and in 2021 Datu Research identified a total of 748 employee locations for manufacturing and service firms — an increase of 26 percent over the number previously identified. A majority of these firms are small businesses — the economic engine for new job growth.

This industry can help in meeting emission reduction goals, especially if regulations for inspections at small, leak-prone wells are made stronger by the EPA. A recent report found that "75 percent of the manufacturing firms and 88 percent of the service firms reported that if future state or federal methane emission rules were put in place, they would anticipate hiring more employees." This means lucrative new jobs for folks across the country, on top of the public health and climate benefits.

EPA, utilizing its air authority, must follow Colorado's and New Mexico's lead by finalizing the strongest possible protections against methane pollution by banning flaring and including inspections of small, leak-prone wells in its next supplemental rule making. This could protect public health and expand job growth across the country. BLM must also take action to fulfill their duty to cut the needless waste of our natural resources and ban routine flaring on public lands.

Given everything we are facing on energy both foreign and domestic, our country needs bold, decisive action to stop the needless waste of our resources now.

Isaac Brown is the executive director of the Center for Methane Emissions Solutions.