Message

From: D'Andrea, Anthony [dandrea.anthony@epa.gov]
Sent: 4/23/2019 8:51:12 PM
To: OPP AD Managers [OPP_AD_Managers@epa.gov]; OPP BEAD Managers [OPP_BEAD_Managers@epa.gov]; OPP Deputy & Associate Directors [OPP_Deputy_&_Associate_Directors@epa.gov]; OPP Division Directors [OPP_Division_Directors@epa.gov]; OPP EFED Managers [OPP_EFED_Managers@epa.gov]; OPP FEAD [OPP_FEAD@epa.gov]; OPP HED Managers [OPP_HED_Managers@epa.gov]; OPP IO [OPP_IO@epa.gov]; OPP PRD Managers [OPP_PRD_Managers@epa.gov]; OPP RD Managers [OPP_RD_Managers@epa.gov]; Rust, Mary [Rust.Mary@epa.gov]; OPPT IO Managers [OPPT_IO_Managers@epa.gov]; OPPT CCD Managers [OPPT_CCD_Managers@epa.gov]; OPPT CESSD Managers [OPPT_CESSD_Managers@epa.gov]; OPPT EAD Managers [OPPT_EAD_Managers@epa.gov]; OPPT IMD Managers [OPPT_IMD_Managers@epa.gov]; OPPT NPCD Managers [OPPT_NPCD_Managers@epa.gov]; OPPT RAD Managers [OPPT_RAD_Managers@epa.gov]; OPPT TRI Managers [OPPT_TRI_MANAGERS@epa.gov]; OSCP Managers [OSCP_Managers@epa.gov]; Dunn, Alexandra [dunn.alexandra@epa.gov]; Beck, Nancy [Beck.Nancy@epa.gov]
Subject: OPPT/OPP/OCSPP Clips, 04/23/2019

Flag: Follow up

OPPT/OPP/OCSPP Clips
April 23, 2019

Animal Testing
The Hill: The next FDA chief should follow Scott Gottlieb's lead and end unnecessary animal testing

Chemical
Chemical Watch: EPA proposes 11 TSCA significant new use rules
E&E News: Groups sue again over deadly paint stripper
News 5: Cleveland: Chemical spilled into creek just one of eight Cleveland Water EPA violations

Lead
Blavity: Victims Of The Flint Water Crisis Can Now Sue The Federal Government For The Environmental Calamity

Toxic
Safety and Health Magazine: 'Chemical Detox for the Workplace': Progressive think tank publishes guidance for workers, reps

Pesticide
Patch: UES Councilman Proposes Pesticide Ban In City Parks

PFAS
Michigan Radio: Scientists Dig Into Hard Questions About The Fluorinated Pollutants Known As PFAS
Patch: How Much PFAS Is Safe? PA Bill Would Lower Drinking Water Limit
The Intelligencer: Pa. Sen. Maria Collett introduces two PFAS bills

ANIMAL TESTING

The Hill
The next FDA chief should follow Scott Gottlieb's lead and end unnecessary animal testing
https://thehill.com/blogs/congress-blog/healthcare/440145-the-next-fda-chief-should-follow-scott-gottliebs-lead-and-end
Kitty Block, Sara Amundson, and Mihael H. Polymeropoulos
Tuesday, April 23, 2019

Opinion piece

Last month, following an undercover investigation that documented the treatment of dogs at a laboratory in Michigan, the Humane Society of the United States persuaded Corteva Agriscience, a major pesticide maker, to stop a pesticide test that they contracted the lab to conduct on beagles. The release of hidden camera footage shined a light on the cruelty of animal testing for a range of products, including pesticides, drugs and dental implants, and the misery these dogs face every day. The beagles were confined to cages, wounded from surgery and force-fed dangerous substances, often resulting in death.

Most Americans would be shocked to learn that this is just one example of the widespread, unnecessary testing and subsequent killing of animals that government regulators, including our own Food and Drug Administration, often direct companies to do. The beagles from the Corteva study were saved, but thousands of dogs continue to suffer in labs in the United States and around the world. The time is ripe for change.

Just after announcing his resignation as FDA commissioner, Scott Gottlieb acknowledged this problem and pledged to reduce reliance on animals used for testing conducted by the agency's scientists, as well as testing conducted by the industry. During an event at the Brookings Institute, Mr. Gottlieb said, "I think when animals are entrusted to our care and when we're conducting experiments under our stewardship or directing the conduct of experiments, it needs to be done with great care and with a very clear understanding that there's an overwhelming public health purpose to the experimentation."

He also said, "I think across our portfolio we've looked for opportunities to use modern technology's better predicted toxicology as a way to supplant the use of animals in studies. And that's a long-term goal of the agency."

As the leaders of the nation's leading family of animal protection organizations (the Humane Society of the United States and Humane Society Legislative Fund) and a major pharmaceutical company (Vanda), we share the goal of limiting testing on animals, including dogs, to the extent possible. Forcing companies to conduct experiments that add no value to public safety or scientific understanding is not only unjustified but also unethical. We are united in urging the next FDA commissioner to put Gottlieb's words into action and leverage the revolutionary technological advances in drug development to quickly reduce the needless sacrifice of animals.

Testing on dogs for FDA approval of a drug isn't explicitly required under federal law, but regulators at the agency do sometimes request that companies carry out dog studies as a condition of getting their drug approved, despite scientific evidence that dog studies do not provide additional useful information to ensure human safety. It is time to ask why. Gottlieb's successor need not look further than other government agencies that have already taken concrete steps to end or reduce animal testing.

In 2007, the Environmental Protection Agency abolished its blanket requirement to conduct 12-month dog studies as part of pesticide registration. EPA no longer requires one-year toxicity studies in dogs other than on an exceptional basis. EPA based its decision on existing scientific literature and its own studies, concluding that longer-term toxicity testing in dogs does not provide essential information.

Earlier this month, following pressure by lawmakers and White Coat Waste Project, the USDA announced it will stop using cats as test subjects in food safety research. Since 1982, USDA had been feeding the meat of dogs and cats to

research subjects. More than 3,000 cats subjected to this research had been killed before the agency announced an end to the project.

Confirming the safety of FDA-regulated products before they are sold to consumers is essential, but we can achieve that goal without the widespread testing of animals taking place today. As alluded to by former commissioner Gottlieb, it is striking that over the past two decades, advances in technology have revolutionized drug development and toxicity testing, yet the FDA has not revisited its approach to animal toxicity studies. The FDA's reliance on animal data is outmoded and outdated. We call on other companies, animal advocacy groups and the general public to join us in urging the incoming commissioner to make reducing, refining and replacing animal testing a top priority for the agency.

Kitty Block is President and CEO of the Humane Society of the United States, Sara Amundson is President of the Humane Society Legislative Fund and Mihael H. Polymeropoulos, M.D., is president and CEO of Vanda Pharmaceuticals.

CHEMICAL

Chemical Watch
EPA proposes 11 TSCA significant new use rules
https://chemicalwatch.com/76705/epa-proposes-11-tsca-significant-new-use-rules
Tuesday, April 23, 2019

The US EPA has proposed 11 TSCA significant new use rules (Snurs) for new substances that were permitted to come to market, subject to certain restrictions, in the first quarter of this year.

Each of the substances is subject to a section 5(e) consent order, but this only applies to the original pre-manufacture notice (PMN). The Snurs are intended to hold the rest of the marketplace to those same conditions.

The Snurs include certain restrictions, such as how the substance may be manufactured or used, how it is released or protective measures that must be in place. These are designed to safeguard against potential risks identified in the new substance's premarket review.

Any manufacturer wishing to use a substance outside these parameters must first submit a significant new use notice (Snun), which gives the EPA the opportunity to review it and determine if it poses an unreasonable risk.

The latest Snurs join a long queue of rules proposed since last summer that have yet to be finalised. These include:

145 Snurs, proposed on 1 August;
27 Snurs, proposed on 17 August;
29 Snurs, proposed in two batches on 27 August;
28 Snurs, proposed on 17 September;
26 Snurs, proposed on 3 October;
28 Snurs, proposed on 10 October;
66 Snurs, proposed on 15 November.
28 Snurs, proposed on 19 March.

Earlier this month, the EPA finalised 13 Snurs that were issued in the absence of 5(e) consent orders. This 'Snur-only' practice, while commonplace before TSCA was amended in 2016, has since been the subject of controversy.

E&E News
Groups sue again over deadly paint stripper
https://www.eenews.net/greenwire/stories/1060205707/search?keyword=epa
Ellen M. Gilmer
Tuesday, April 23, 2019

Environmental, public health and labor advocates are going to court over the Trump administration's continued allowance of commercial uses of a deadly chemical found in paint strippers.

The Labor Council for Latin American Advancement and the Natural Resources Defense Council filed suit last week over EPA's refusal to ban commercial uses of methylene chloride, which can cause heart failure and kill people exposed to it.

The Vermont Public Interest Research Group; Safer Chemicals, Healthy Families; and Lauren Atkins and Wendy Hartley — two mothers whose sons died while using the chemical — filed a similar lawsuit. They are represented by Bob Sussman, a high-ranking EPA official during the Obama and Clinton administrations.

Both challenges are in the 2nd U.S. Circuit Court of Appeals. The groups and individuals had previously sued EPA for inaction on the chemical.

In March, EPA agreed to ban consumer sales of the product but rejected a proposal to ban commercial uses. Critics say the approach creates a major loophole that benefits chemical companies but leaves workers vulnerable (E&E News PM, March 15).

"There is no law, science or policy behind the exclusion of workers from EPA's methylene chloride rule," Earthjustice attorney Jonathan Kalmuss-Katz, who is representing the labor council, said in a statement today. "It is a craven and illegal giveaway to companies that want to continue to manufacture and sell deadly paint strippers."

Hector Sanchez Barba, head of the labor council, noted that methylene chloride has already killed dozens of workers.

"This is an inadmissible and criminal attack against our communities," he said. "We will continue to fight for the rights of working families so that Latino and immigrant workers, as well as all workers across our country, are granted the protections needed to keep them safe on the job."

EPA does not comment on pending litigation. The agency is seeking public input for a future program to establish training for commercial uses of the chemical.

News 5: Cleveland
Chemical spilled into creek just one of eight Cleveland Water EPA violations
https://www.news5cleveland.com/news/local-news/investigations/chemical-spilled-into-creek-just-one-of-eight-cleveland-water-epa-violations
Ron Regan
Monday, April 22, 2019

CLEVELAND — An exclusive 5 On Your Side Investigation has found what the Ohio Environmental Protection Agency is calling a “history of non-compliance” that could pose an “unacceptable risk” to health and “reliable delivery of safe drinking water."

So far, drinking water for Cleveland and 70 surrounding suburbs served remains safe but the violations underscore the need for continuing infrastructure improvements that Cleveland Water has undertaken over the last two decades.

A review of EPA “Notice of Violation” records over the last four years found eight violations ranging from equipment failures to lab records.

The violations are in stark contrast to testimony delivered before a Cleveland Council Committee in February where Public Utilities Director Robert Davis and Water Commissioner Alex Margevicius described a “successful year” with “zero Ohio EPA treatment technique violations."

Among the most recent violations, a power outage lasted 11 hours at the Baldwin Treatment Plant last November, affecting the de-chlorination process and allowing chlorine to be discharged nearby Doan Brook.

A plant manager admitted he "tried calling the electrician...but couldn't reach him."

During the power outage, Baldwin Treatment Plant recorded residual chlorine in violation of Ohio environmental laws and regulations.

As a result this incident, the Ohio EPA requested Cleveland Water to comply with effluent limitations outline in the facilities permit.

According to the EPA :

"Whenever a municipality, industry, or other entity wishes to discharge water to a surface water of the State, they must first obtain a permit from the Ohio EPA Division of Surface Water (DSW). This permit is called a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permits regulate wastewater discharges by limiting the quantities of pollutants to be discharged and imposing monitoring requirements and other conditions. The limits and/or requirements in the permit help ensure compliance with Ohio's Water Quality Standards and Federal Regulations, all of which were written to protect public health and the aquatic environment."

Repeated requests for interviews to explain the violations were turned down, including an effort to question Public Utilities Director Davis who insisted he "would be happy" to speak if we called his office—efforts that failed.

But days before our report was scheduled to air—after still another request for an interview-- Cleveland Water Commissioner Alex Margevicius agreed to a sit-down interview.

"We acknowledge these violations have occurred," said Margevicius, "but the most important we want to stress is that our water is safe, eminently safe, and has always been safe."

Margevicius conceded many of the violations occurred because "repairs" were attempted rather than replacing aging equipment.

Regarding the lack of an electrician on duty during a power outage at the Baldwin Plant, Margevicius blamed the Thanksgiving holiday for low staffing levels and said the department is currently looking into solutions that would require revisions of a union contract, overtime and on call employees.

Margevicious also insisted his testimony before a city council committee referencing "zero treatment" violations was not meant to mislead saying the Notice of Violations we found in our investigation are a "lower tier" of violations that are distinct from "treatment violations".

He also stressed each violation is being fully addressed and remedies are underway.

"If you're the drinking water public you sort of scratch your head and say—wait a minute—you don't have an electrician on call?" asked Heid Robertson, Professor of Environmental Law at Cleveland State University.

"Our drinking water is not unsafe," Robertson adds, but warned, "we have a seriously aging infrastructure, perhaps a dangerously aging infrastructure".

Cleveland water customers spend 44 cents of every dollar in water bills for infrastructure improvements.

At Baldwin and Nottingham treatment plants, that amounts to $325 million.

In addition, Cleveland Water spends $2 million a year on plant security.

Plus, this year, Cleveland Water will be taking part in a $378,000 spending spree to promote itself through advertising, promotional campaigns and trinkets like toothbrushes and water bottles.

Even so, it could not find an electrician on duty when the power went out at one of its largest plants.

We found what Oho EPA calls “unresolved violations” and a “history of non-compliance” including:

But instead of complying with EPA violations, we found Cleveland Water attempted to cut staff at both plants.

Ohio EPA would not allow it, denying the request.

LEAD

Blavity
Victims Of The Flint Water Crisis Can Now Sue The Federal Government For The Environmental Calamity
https://blavity.com/victims-of-the-flint-water-crisis-can-now-sue-the-federal-government-for-the-environmental-calamity
Ricky Riley
Tuesday, April 23, 2019

A federal judge ruled Flint, Michigan, residents can sue the federal government for its role in the five-year water crisis.

CNN reports US Judge Linda V. Parker ruled last week that the federal government is not immune from litigation.

Since the onset of the crisis, there have been numerous lawsuits filed against the Environmental Protection Agency (EPA) for reportedly not acting quickly enough. Currently, there are about a dozen lawsuits against the city of Flint and the state of Michigan. Many of the lawsuits alleged the government knew the Flint River water source and outdated piping was contaminated with lead in 2014 and 2015.

"The impact on the health of the nearly 100,000 residents of the City of Flint remains untold," Parker wrote in the April 18 ruling. "It is anticipated, however, that the injury caused by the lead-contaminated public water supply system will affect the residents for years and likely generations to come."

The recent news came after the Michigan Department of Environmental Quality announced a $77.7 million loan for water projects in Flint, reports ABC 12. Essentially, the loan will be a grant as there will be a 0% interest rate and the entire loan will be forgiven.

Blavitize your inbox! Join our daily newsletter for fresh stories and breaking news.

Parker's ruling pinned a large share of the blame for the crisis on the EPA, saying the agency was "well aware that the Flint River was highly corrosive and posed a significant danger of lead leaching."

Lawsuits filed against the EPA also echo several of Parker's arguments. In the last five years, the agency knew there were possible health risks stemming from the lead-contaminated Flint River. The judge believes the agency acted "negligently" on all levels while handling the crisis.

A Legionnaires disease outbreak caused by the tainted tap water reportedly killed 12 citizens. Additionally, lead poisoning has become such an issue, residents are focusing on improving access to fruits and vegetables to deal with side effects, reports Popular Science. Nutritious foods tend to have calcium and iron to combat lead in the body.

Flint officials "were not warning Flint's residents that they were being supplied lead-laced water. Quite to the contrary, the EPA learned that State and local officials were misleading residents to believe that there was nothing wrong with the water supply," the judge wrote.

In early April, another judge ruled citizens were allowed to sue Michigan's former Gov. Rick Snyder.

The Associated Press reported Judge Judith Levy released a 128-page opinion stating Snyder's Department of Environmental Quality failed to provide corrosion control.

Experts reportedly warned higher-ups that the city's switch to the Flint River would negatively affect residents' health but the switch was pushed through anyhow. The opinion also noted the city of Flint was under state management from 2014 to 2015 at the start of the crisis.

TOXIC

Safety and Health Magazine
'Chemical Detox for the Workplace': Progressive think tank publishes guidance for workers, reps
https://www.safetyandhealthmagazine.com/articles/18328-chemical-detox-for-the-workplace-progressive-think-tank-publishes-guidance-for-workers-reps
Tuesday, April 23, 2019

Washington — A new guide from the Center for Progressive Reform is intended to help workers and their representatives find resources on chemical hazards and then use that information to "achieve a nontoxic workplace."

In Chemical Detox for the Workplace: A Guide to Securing a Nontoxic Work Environment, the advocacy group recommends moving faster than OSHA and the Environmental Protection Agency to secure a safer and healthier work environment where potential exposure to toxic chemicals exists.

"Agencies like OSHA and EPA encounter serious obstacles when developing workplace protections against toxic substances, even when they have overwhelming scientific evidence of significant health risks," Thomas McGarity, guide co-author and CPR board member, said in an April 17 press release. "The difficulty results not from a lack of data, but from intense lobbying from well-funded industries."

The guide is divided into three main sections. The first provides tactics for reducing risks and helping injured employees. Among the subjects are how to work with an employer to use safer alternatives to toxic chemicals, as well as how to file a complaint with OSHA, submit a tip to EPA and involve the legal system.

The second provides an overview of federal laws, and the third is designed to help interested parties diminish hazards in the workplace and identify chemical information. The guide also includes case studies.

An estimated 50,000 U.S. workers die every year from work-related diseases, with most resulting from toxic chemical exposures, CPR claims, citing a 2018 AFL-CIO report. Workers who are at increased risk include those in agriculture, domestic cleaning, hair and nail salons, home repairs, building construction, and chemical manufacturing.

"Although the guide does not cover every issue or situation workers may face, it is our hope that it will assist with identifying the appropriate questions to ask; initiating research on chemicals of concern in the workplace; and collaborating with other workers, unions and local organizers to take action," Sidney Shapiro, co-author and CPR board member, said in the release.

CPR is scheduled to host a webinar on the guide at 1 p.m. Eastern on May 8.

PESTICIDE

Patch
UES Councilman Proposes Pesticide Ban In City Parks
https://patch.com/new-york/upper-east-side-nyc/ues-councilman-proposes-pesticide-ban-city-parks

Brendan Krisel
Tuesday, April 23, 2019

UPPER EAST SIDE, NY — One of the Upper East Side's representatives in the City Council introduced a new bill that would ban city agencies from using toxic pesticides and herbicides in city parks.

Legislation introduced by Council Members Ben Kallos and Carlina Rivera, who represents several Lower Manhattan neighborhoods, would bring New York City up to speed with several other cities and countries around the world that have banned the spraying of pesticides such as glyphosate, Kallos said. Glyphosate is the pesticide sold in the controversial product Roundup and has been classified as a possible carcinogen by the World Health Organization.

Despite the known dangers of glyphosate, city agencies sprayed the pesticide on 1,365 occasions in 2013, which accounted for half of the city's pesticide usage that year, according to city Department of Health studies.

Kallos and Rivera's bill would prohibit any city agency from using substances like glyphosate and other pesticides and herbicides classified as toxic by the EPA and the California Office of Environmental Health Hazard Assessment. The two council representatives are calling the bill the most far-reaching legislation to regulate pesticides in the city.

"Parks should be for playing not pesticides," Kallos said in a statement. "All families should be able to enjoy our city parks without having to worry that they are being exposed to toxic pesticides that could give them and their families cancer."

Kallos added that he doesn't allow his newborn daughter to play on the grass in city parks out of fear that she may be sickened by pesticides.

The legislation would force city agencies to switch from synthetic pesticides to biological pesticides made from naturally occurring chemicals. These natural pesticides are generally accepted as less toxic and break down more rapidly, the bill's sponsors said. In addition to banning pesticides in city parks, the bill would also prohibit spraying pesticides within 75 feet of a body of water.

The bill is similar to regulations in Chicago, where 90 percent of city parks have been pesticide free since 2014, the bill's sponsors said. In addition to introducing the legislation, Kallos and Rivera sent a letter to Mayor Bill de Blasio asking him to place a moratorium on pesticide spraying while the bill goes through the City Council.

The bill is currently being considered by the council's committee on health, according to legislative records.

PFAS

Michigan Radio
Scientists Dig Into Hard Questions About The Fluorinated Pollutants Known As PFAS
https://www.michiganradio.org/post/scientists-dig-hard-questions-about-fluorinated-pollutants-known-pfas
Rebecca Hersher
Tuesday, April 23, 2019

Scientists are ramping up research on the possible health effects of a large group of common but little-understood chemicals used in water-resistant clothing, stain-resistant furniture, nonstick cookware and many other consumer products.

Per- and polyfluoroalkyl substances are generally referred to by their plural acronym, PFAS. PFAS are resistant to water, oil and heat, and their use has expanded rapidly since they were developed by companies in the mid-20th century. Today, PFAS' nonstick qualities make them useful in products as diverse as food wrappers, umbrellas, tents, carpets and firefighting foam. The chemicals are also used in the manufacture of plastic and rubber and in insulation for wiring.

In short, they are all around us. And as a result, they've found their way into the soil and, especially in some regions, into our drinking water.

"We're finding them contaminating many rivers, many lakes, many drinking water supplies," says Linda Birnbaum, director of the National Institute of Environmental Health Sciences and the National Toxicology Program. "And we're finding them not only in the environment, but we're finding them in people."

"Essentially everyone has these compounds in our blood," she explains.

That's in part because PFAS don't break down easily — a quality that has earned them the nickname "forever chemicals." Some varieties have been found to stick around in the human body for years, if not decades. Others accumulate in soil or water, creating a continuous source of exposure.

Despite their ubiquity, however, scientists know relatively little about the health effects of most types of PFAS.

No PFAS legal safety limit yet

"Despite their everyday use, the body of science necessary to fully understand and regulate these chemicals is not yet as robust as it needs to be," acknowledged the assistant administrator of the Environmental Protection Agency's Office of Water, David Ross, at a congressional hearing on PFAS in March.

This year, the EPA signaled that it is considering setting a legal safety limit for some PFAS in drinking water, but it hasn't acted yet.

Meanwhile, public spending on research of the chemicals has gone up. The National Institutes of Health, the Environmental Protection Agency, the Centers for Disease Control and Prevention and multiple state university systems have all increased their funding for PFAS studies in recent years.

The Environmental Protection Agency signaled this year that it is considering setting a safety limit for PFAS in drinking water.

"We have more and more of our grantees who are looking at PFAS in their studies — both mechanistic studies and animal studies," as well as epidemiological studies that analyze large populations, explains Birnbaum. But the work is slow going.

"These are a very broad class of chemicals — probably 5,000 or more — and it seems like new ones are being produced all the time," she says.

In most cases, U.S. chemical regulations do not require that companies prove a chemical is safe before they start selling it. It's up to the EPA to determine whether a substance is unacceptably dangerous and under what circumstances, and typically such analyses begin only after public health concerns are raised.

As a result, "we really don't know much about the great majority of these chemicals," says Birnbaum.

One approach that scientists supported by the National Institutes of Health are taking is to analyze hundreds of PFAS varieties at once. The goal is to identify subgroups of PFAS with similar characteristics, so scientists won't have to do a battery of toxicity tests on each individual chemical.

"There's no way that we'll ever be able to test 5,000 or more PFAS," Birnbaum explains.

Early studies suggest some health risks

Some of the most large-scale PFAS epidemiology research in the U.S. was conducted by a science panel starting in 2005 as part of a class action lawsuit against the chemical company DuPont. The case alleged that thousands of people in West Virginia and Ohio were hurt by industrial releases of a PFAS chemical called PFOA.

The panel — made up of three career epidemiologists whom both sides of the court case agreed to have evaluate the scientific evidence — found a "probable link" between long-term exposure to the chemical and certain medical conditions, such as kidney cancer and thyroid disease.

Additional studies of both humans and rodents have found similar associations.

"I think we have growing information that at least some members of this class can be problematic," says Birnbaum.

Those findings have raised a host of new questions, first about mechanism: How do PFAS chemicals act in the body? It's one thing to see an association between exposure to a substance and disease. It's much more difficult to determine a likely path from chemical exposure to disease symptoms.

"We still don't know the precise molecular ways that they produce toxicity," explains Jamie DeWitt, a toxicologist who studies PFAS at East Carolina University.

For example, DeWitt and others have published studies of both humans and rodents that suggest exposure to one PFAS chemical — PFOA — can suppress the body's response to vaccines.

"I'm pretty sure that a type of immune cell called a B cell is involved" in that suppression, says DeWitt. "But I don't know why the B cell doesn't produce enough antibody. Is it signaling molecules that say, 'Hey, B cell, make antibody?' Is it something wrong inside the B cell itself? Is it the amount of energy that the B cell has? These are these molecular mechanisms that we're still trying to figure out."

Knowing those mechanisms for PFOA might help scientists estimate the potential risks of other PFAS that have a similar structure, she says. "Honestly, I think we're still at the very beginning."

At the current rate of research, Birnbaum says, it will take about two years to get a basic handle on the toxicity of the whole PFAS group. But there will still be many questions for both scientists and regulators.

"Realizing that these chemicals have escaped into the environment, how are we going to remediate those problems? How are we going to get rid of these chemicals?" she says.

"A question that we all need to be asking is: What's essential?" she says. "Do we really need it? Are there some places where we need to have this class of chemicals to be safe? But if that's the case, we would like them used in closed systems so they don't escape and end up contaminating the whole world."

Asked to comment on how essential PFAS are, a spokesperson for the FluoroCouncil, part of the main trade group representing chemical companies in the U.S., defended their widespread use in consumer products.

"PFAS are an essential enabling technology that play a vital role in products ranging from lifesaving applications in pacemakers and defibrillators, to the design of lower-emissions automobiles with improved auto safety, to the manufacturing of semiconductors, solar panels and high-performance electronics," a spokesperson for the FluoroCouncil wrote in an emailed statement to NPR.

"The vast differences within the PFAS family of chemistry are not immediately obvious to many people," the statement continues. "While some of the names sound the same, PFAS have differing characteristics, formulations, intended uses, and environmental and health profiles."

Living with uncertainty

While two years is not very long in the world of basic scientific research, it can feel like an eternity to people who are worried about their health. In response to public concern, some states already are taking action on their own, both to regulate PFAS emissions and exposure and to gather public health information in communities where the water is known to be contaminated.

"For people who live in areas where one of their drinking water sources has a level [of PFAS] that was high enough to raise concern, there's a really strong demand for information," says Alissa Cordner, a sociologist at Whitman College and one of the organizers of a nationwide PFAS contamination list.

"There's so much uncertainty around what the scale and the consequences of contamination are," she explains, and that uncertainty makes people afraid. "In terms of individuals wanting to know 'What's in my drinking water?' the testing is still prohibitively expensive."

And even when scientists or officials test water in a community, the lack of scientific evidence gathered, so far, about PFAS and health makes it difficult for people to know how to react. Most in-home water filters don't remove the chemicals effectively, according to the CDC.

"I think it's confusing, because you have so many chemicals about which we know so little, other than they're a member of this large class," says Birnbaum. "I think that is confusing, but it's also frustrating. So we're trying to address those problems right now." Regulators, scientists and citizens all agree: Research results can't come soon enough.

Copyright 2019 NPR. To see more, visit https://www.npr.org.
DAVID GREENE, HOST:

Scientists are studying the health effects of a group of chemicals used in clothing and furniture and cookware - a lot of products. And the initial research is suggesting that some of these chemicals are toxic. Here's more from NPR's Rebecca Hersher.

REBECCA HERSHER, BYLINE: PFAS, per- and polyfluoroalkyl substances, are manmade chemicals. They're super useful because they're resistant to water and oil and heat. PFAS help make clothing waterproof. They keep food packaging from sticking to food. They're used in non-stick pans and stain-resistant upholstery and special foam for fighting hard-to-put-out fires. Their usefulness has led the chemicals to end up everywhere.

LINDA BIRNBAUM: We're finding them contaminating many rivers, many lakes, many drinking water supplies. And we're finding them not only in the environment, but we're finding them in people.

HERSHER: Linda Birnbaum is with the National Institutes of Health. She says PFAS use has increased over the last 20 years or so. And at this point...

BIRNBAUM: Essentially, everyone has these compounds in our blood.

HERSHER: It's everywhere, and that sounded the alarm among scientists. The federal government is pumping extra money into research about how PFAS chemicals affect our health, but it's slow going. For one thing, there are at least 5,000 different PFAS chemicals. The handful of PFAS varieties that have been studied seem to be associated with some not-great health effects.

One big study looked at people in West Virginia and Ohio who were exposed to high levels of two PFAS varieties. It found elevated incidences of thyroid problems and certain cancers. Smaller studies have suggested some PFAS chemicals might hurt our immune systems. Birnbaum says...

BIRNBAUM: I think we have growing information that at least some members of this class can be problematic.

HERSHER: That's led some states - among them, Michigan, Colorado, New Jersey, and Washington state - to regulate some PFAS chemicals. In North Carolina, where an entire river basin is known to be contaminated, the state is surveying residents about their health.

At the federal level, the EPA has said it doesn't have enough information yet to set a nationwide safety limit on PFAS in drinking water. And politicians are talking about PFAS too. It's in the presidential race. Here's Senator Kirsten Gillibrand in New Hampshire last month.

(SOUNDBITE OF ARCHIVED RECORDING)

KIRSTEN GILLIBRAND: The worst thing about it for me, as a mother, is the fact that parents are so worried. They're bathing their children in this water. They're cooking with this water. They don't know what the impact's actually going to be.

HERSHER: And that last part, the uncertainty, is the crux of what's going on with PFAS right now because a lot of people have questions that scientists just don't have answers for yet.

ALISSA CORDNER: There's so much uncertainty around what the scale and the consequences of contamination are.

HERSHER: Alissa Cordner is a sociologist who studies PFAS. She says there's a growing demand for basic info about the chemicals, info like, how do I know if there are PFAS chemicals in my water? She and her colleagues have started a public list to keep track of which drinking water supplies have been tested for which chemicals.

CORDNER: There is a lot of ongoing water testing in some states, but it's not happening universally around the country. And in terms of individuals wanting to know, what's in my drinking water, the testing is still prohibitively expensive.

HERSHER: That's because PFAS are difficult to test for. And if you find out your water is contaminated, most in-home water filters can't remove the chemicals effectively. With not a lot of solutions or information to go around, the pressure is on scientists.

The National Institutes of Health is funding dozens of PFAS studies, including research that can look at about a hundred PFAS chemicals at once. The goal is to break the thousands of PFAS varieties into a handful of subgroups, make it easier to find out if some PFAS varieties are more toxic than others. It will take about two years to get there. In the meantime, Birnbaum says...

BIRNBAUM: A question that we all need to be asking is, what's essential? Do we really need it? Are there some places where we have to have this class of chemicals to be safe? But if that's the case, we would like them used in closed systems, so they don't escape and end up contaminating the whole world.

HERSHER: Rebecca Hersher, NPR News. Transcript provided by NPR, Copyright NPR.

Patch
How Much PFAS Is Safe? PA Bill Would Lower Drinking Water Limit
https://patch.com/pennsylvania/uppermoreland/how-much-pfas-safe-pa-bill-would-lower-drinking-water-limit
Justin Heinze
Tuesday, April 23, 2019

Legislation introduced in Pennsylvania this week would lower the legally safe level of a man-made chemical, PFAS, in local drinking water.

State bill 581 would drop the acceptable level of the chemical, often found in firefighting foams, cookwear, and other materials to 10 parts per trillion. The state currently follows the EPA's "health advisory level," which is 70 parts per

trillion. The bill's sponsor, State Sen. Maria Collett (D-12), called it a basic human rights issue, a matter of access to "clean air and pure water."

"The sad reality," Collett said in a statement, "Is that this right has not been adequately preserved or defended as it pertains to our drinking water and the contaminated soil from which water tainted with dangerous chemicals continues to flow and spread through communities across Pennsylvania."

Contamination into drinking water sources has occurred close to military bases and fire training sites that use the foams, as well as landfills and manufacturing facilities in Pennsylvania and around the country.

Under the new bill, the 10 parts per trillion measure would be in place until a broader state or federal authority — the Department of Environmental Protection, Gov. Wolf, or the EPA — issues their own standard.

The DEP announced back February that they had begun the process of setting a statewide standard; that was in response to the EPA's announcement the week before that they were taking steps towards establishing a nationwide limit.

The DEP stepped in then because they felt that the EPA was moving too slow; this legislation is essentially a statement by legislators that both agencies are moving too slow for residents who are impacted by the chemicals.

"The people of the 12th District are sick and tired of waiting for action and answers," Collett added in her statement. "I can no longer count the number of community members who have shared with me their stories of lost loved ones, personal health struggles, and increased water bills."

Contaminated water has led to numerous wells in southeastern Pennsylvania being shut down, and spurred widespread concerns about the safety of drinking water in the region.

The exact level of PFAS which can cause negative health effects is a matter of some debate, and will surely be a focal point of this bill moving forward. A 2016 federal study found no evidence of a "cancer cluster" in Montgomery and Bucks counties, despite concerns that a growing number of local residents were being taken ill due to the contamination. Legislators point to a wide variety of health consequences, including infertility, high cholesterol, and cancer.

In addition to the first bill, Collett introduced a second piece of related legislation, Senate bill 582, which would classify PFAS as hazardous substances under the state's Hazardous Sites Cleanup Act.

Earlier in April, the DEP announced a plan to inspect 300 wells at high risk areas around Pennsylvania for PFAS levels.

The Intelligencer
Pa. Sen. Maria Collett introduces two PFAS bills
https://www.theintell.com/news/20190423/pa-sen-maria-collett-introduces-two-pfas-bills
Kyle Bagenstose
Tuesday, April 23, 2019

Sen. Maria Collett used Earth Day to introduce two bills she says would help tackle PFAS chemical contamination in Bucks and Montgomery counties.

Sen. Maria Collett, D-12, of Lower Gwynedd, introduced two bills Monday that she says would help Pennsylvania tackle problems relating to per- and polyfluoroalkyl substances, or PFAS.

As told in a special report Sunday, five years after the unregulated chemicals were discovered in local drinking water supplies, the contaminants still are causing issues for impacted municipalities and residents. Collett's first bill, S.B. 581, would create an interim drinking water standard for four types of PFAS at 10 parts per trillion, which is just a fraction of a 70 ppt health advisory level put forth by the Environmental Protection Agency.

The interim standard would remain in place until either the EPA or the Pennsylvania Department of Environmental Protection creates an official standard. The EPA has said it intends to announce whether it will pursue an official standard for the chemicals by the end of the year, but that setting it would take several additional years. The DEP has said it will set a standard, but could take two years or more.

A second bill offered by Collett, S.B. 582, classifies PFAS as a hazardous substance under Pennsylvania's Hazardous Sites Cleanup Act. Experts say such a move could help impacted residents and communities recoup costs related to PFAS contamination and potentially give them legal standing to make polluters clean up the chemicals, particularly if a drinking water standard is also in place.

Much of the local PFAS contamination was caused by firefighting foams used by the military at a trio of former and current military bases in Horsham, Warminster, and Warrington. All three facilities are in Collett's district.

"The people of the 12th District are sick and tired of waiting for actions and answers," Collett said in a prepared statement. "I can no longer count the number of community members who have shared with me their stories of lost loved ones, personal struggles, and increased water bills. Passage of these bills will be a decisive first step toward restoring the public's confidence and ensure that everyone impacted by PFAS contamination has the resources necessary to remediate the crisis."

Bills tackling PFAS in the General Assembly have not fared well in past legislative sessions, with prior proposals to establish drinking water standards or add hazardous substances listings failing to advance past committee. But Collett said in a recent interview she believes the "tide is shifting" in Harrisburg as the chemicals are being found in more communities across Pennsylvania.

Anthony D'Andrea
Intern, Office of Public Affairs
202-564-7137