

#### America's dirty divide

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# Scientists tied to chemical industry plan to derail PFAS rule on drinking water

Michael Dourson receives funds from chemical makers and plans to develop and publish studies that benefit firms

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### **Tom Perkins**

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Scientists with financial ties to industry and histories of producing controversial research to derail chemical regulations are mobilizing to attack strict new federal drinking water limits for toxic PFAS, or "forever chemicals", documents reviewed by the Guardian reveal.

In July, Michael Dourson, a contentious toxicologist who receives some funding from chemical makers, sent an email to scientists, consultants and lawyers detailing a plan to develop and publish peer-reviewed science for chemical companies to wield as evidence against PFAS limits. It went out just after industry groups mounted a legal challenge to the restrictions.

But current and former Environmental Protection Agency staff who reviewed the documents allege the scientists are engineering an ethically questionable plan designed to generate uncertainty about the "robust" science underpinning the PFAS limits.

The plans were "not a valid approach to science", said Maria Doa, a former EPA risk assessment manager now with the Environmental Defense Fund non-profit. Rather, she said, they were a legal strategy out of the industry playbook for undoing regulations.

"They're trying to undermine the EPA's science, make it sound like there's uncertainty where there isn't and make it sound like there's disagreement within the scientific community where there's not," Doa added. The EPA amassed hundreds of animal and epidemiological studies before issuing its new rules in April.

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PFAS in water, said Betsy Southerland, a retired EPA water division manager.

"This is pivotal," she said. "If a court strikes this down ... then the EPA will say the bar is too high to ever regulate using the Safe Drinking Water Act."

Dourson said accusations of bias were "disingenuous". He once worked for the EPA but left the agency to set up what his critics characterize as a "one-stop shop" for industry-friendly research, Toxicology Excellence for Risk Assessment (Tera). It receives funding from the chemical industry and government, he said, adding Tera was "very much an independent, neutral science NGO".

In 2017, Trump nominated Dourson to oversee the EPA's chemical safety division, but he was forced to withdraw his name after failing to get enough GOP support, in part because his Senate critics alleged he ran a "Science for Sale" operation that allowed industry's American Chemistry Council to edit papers.

Dourson's July email cites the legal challenge to the new regulations, then adds "a couple approaches can be used to support [it], but nearly all of them require peer-reviewed and published papers before serious consideration".

Scientific papers would be developed in part based on presentations that industry-connected researchers, attorneys, consultants and former Trump EPA officials gave at an October 2023 conference, organized by Tera, at which they honed the attack, Dourson wrote.

The papers will later this year be "published as the first issue of [a] new journal" being established to first provide "support" for the legal challenge, Dourson states in the email. The new journal will be published by a non-profit that has been criticized for ties to big tobacco and its publications' bias toward industry.

In the email, Dourson solicits donations to help fund the operation. "Can we count on your group to make a tax-deductible donation to get our team to publish a set of papers by the end of 2024?" he asks.

PFAS are a class of about 15,000 chemicals typically used to make products that resist water, stains and heat. They are called "forever chemicals" because they do not naturally break down. They can accumulate in humans and the environment and are linked to cancer, kidney disease, liver problems, immune disorders, birth defects and other serious health problems.

In a systematic review of all available science on the issue, the EPA found virtually no level of PFOA or PFOS, two types of common PFAS compounds, in drinking water is safe, and established legally enforceable limits of four parts per trillion (ppt) for each.

Dourson and the dozens of other industry-aligned scientists who are part of the Tera-led plan say the limits should be much higher.

### 'It's unusual to be so blatant'

Faced with overwhelming evidence in the late 1950s that smoking causes cancer, tobacco companies dispatched scientists to develop research aimed at "producing scientific uncertainty" and undermining regulators, a peer-reviewed paper in the American Journal of Public Health details.

The strategy delayed regulation for decades, becoming "a powerful and influential model". Some observers say it is now being employed by the fossil fuel industry to delay climate action and Tera to thwart PFAS regulation.

"This is out of the playbook and it's a lot of the same quote-unquote scientists and same hired guns," said Erik Olson, senior adviser to the NRDC Action Fund. "The papers get cited in tort cases where the chemical industry is sued and heavily used before regulatory agencies."

One expert said Dourson's effort was particularly notable.

"In my 22 years spent in three regulatory programs I came to understand the games [the industry] plays, but this one astonished me because it's unusual to be so blatant," said Penny Fenner-Crisp, a former EPA water division manager who worked with Dourson, and reviewed the email and conference document.

The documents outline a three-pronged attack that aims to convey uncertainty and a lack of consensus around the PFAS limits. Dourson alleges there are "concerns" over or "criticism" of the statistical methods, limitations and designs of the studies underpinning the EPA's rules.

He and other scientists, many with industry ties, recently published a study claiming the safe drinking water limit lay between 70 ppt and 490 ppt - up to hundreds of times above the EPA limit - but it dismissed the vast majority of the animal and epidemiological studies that the EPA considered valuable.

Harvey Clewell, another consultant who for decades directed an industry firm that produced science used to attack regulations, said at the October 2023 conference that the epidemiological studies were inconclusive.

Southerland said the vast majority of the scientific world disagreed: "What they're saying is unless we have a bunch of bodies in

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His opponents say such claims cherry-pick limits that were developed from 20-year-old science. The Health Canada limits repeatedly cited were established in 2018, but the agency has since lowered them, as PFAS's dangers have come into sharper focus in recent years and the technology to measure and remove them has dramatically improved.

A third industry argument against stricter limits focuses on the cost to upgrade water treatment facilities, which could run to tens of billions of dollars. Proponents of increased regulation say the public health benefit could also amount to a significant sum.

A current EPA scientist who spoke on the condition of anonymity dismissed the industry criticisms across the board, saying all research will "have some limitations, and you can't possibly design a study that can cover every possible aspect of a problem.

"Highlighting those uncertainties while downplaying what the studies pretty confidently tell us is the standard method of attacking regulators," they added.

# "It's a pretty good investment for them"

Dourson told the Guardian that his study finding higher exposure levels to PFOA are safe did not receive any industry funding and said there were government officials from other countries at his conference.

It is evidence, he said, that he is not carrying out the attack on EPA's PFAS limits solely at industry's behest.

When asked about the funding pitch in his email, Dourson responded: "We are very much an independent NGO and we work with all parties." He added that he would make funding sources public after the journal is published.

Those who reviewed the documents also raised ethical concerns with the scientific process. It is unusual to establish a journal for which the first issue is dedicated to undoing regulations. Dourson's critics also raised questions about whether the peer reviewers would have biases that would affect their judgments.

Regardless, the strategy of industry funding peer-reviewed science for legal purposes has sometimes been "pretty successful" in the past, Olson said.

"They use it for litigation, regulatory purposes and try to influence public opinion, and it's a pretty good investment for them - they spend a few million dollars here and a few million there and in the meantime they keep a chemical that they make billions off of, on the market," he added.

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