



A coal-fired power plant in Colorado will not face stricter standards.

FIVE WAYS TRUMP IS UNDERMINING ENVIRONMENTAL HEALTH

While the world focuses on a pandemic, the United States is adopting controversial environment policies.

By Jeff Tollefson

The US Environmental Protection Agency (EPA) turns 50 this year, but scientists and environmentalists see little reason to celebrate. In the middle of a global pandemic, the agency's leadership is pressing forward with efforts to roll back environmental regulations and alter the way in which science is used to craft policy.

In the past month alone, the agency has dialled down regulations on automobile emissions and fuel efficiency; it has weakened rules on mercury and other pollutants emitted by power plants; and it has shied away from strengthening standards to reduce fine-particle air pollution.

"This is an extremely aggressive agenda," says Betsy Southerland, who spent more than three decades as an EPA official before retiring in protest against the current administration's policies in 2017.

Two rollbacks on emissions

At the end of March, President Donald Trump's administration finalized a plan to scale back targets for automobile-emissions reductions from 5% per year to 1.5%, a change that the EPA acknowledges could result in an extra

867 million tonnes of carbon dioxide being released into the atmosphere by vehicles sold over the next decade.

In mid-April, the EPA issued another rule, targeting mercury-emissions standards for power plants first put in place under the previous president, Barack Obama. Although the agency left the existing limits in place, it adjusted how the rules' costs and benefits are calculated, weakening their economic justification. The original price tag reported for the 2011 regulation took into account health benefits from a reduction in particulate matter that would accompany cuts to mercury emissions.

Taking these out of the equation makes the rule seem more expensive, says David Spence, a political scientist and law scholar at the University of Texas at Austin. It also sets a precedent that could undermine the mercury rule and others.

Inaction on particulates

Even more alarming, public-health experts say, was a decision on fine-particle pollution that EPA administrator Andrew Wheeler announced in mid-April. In that case, the EPA went against the advice of its own staff and many academic scientists by leaving the current standards in place – in spite of

evidence that reducing such pollution could save thousands of lives each year (Q. Di *et al.* *N. Engl. J. Med.* **376**, 2513–2522; 2017).

In a report issued last September, EPA staff cited epidemiological and other evidence that would support cutting the maximum allowed average level of fine particulate matter from 12 micrograms per cubic metre of air to between 8 and 10.

The regulatory process that prevented that change was tipped towards the interests of polluters from the outset, with little to no independent scientific oversight, says Christopher Frey, an environmental engineer at North Carolina State University in Raleigh. Frey formerly chaired the EPA's scientific advisory committee on clean air, and was a member of a review panel for the issue that was disbanded in October 2018.

"Rather than focusing on protecting public health, EPA is on a misguided mission to protect the profits of regulated industries," Frey says. "But it's all based on a lot of misconceptions and assumptions, rather than facts or evidence."

Two proposed rules

Looking ahead, it could become even more difficult to bring health data and other evidence to the policymaking table if the EPA moves forward with a pair of proposals that would alter how science is used and evaluated at the agency. First is a "transparency" rule that could restrict the use of public-health studies – including much of the epidemiological research that the agency has used to set particulate-pollution standards in the past.

A draft proposal states that if underlying data and models are not publicly available – often the case for private health-care data – the EPA could give them less weight or exclude them from consideration when setting standards and conducting scientific assessments.

"It would apply to pretty much all of EPA's major work," says Michael Halpern, deputy director of the Center for Science and Democracy at the Union of Concerned Scientists, an advocacy group in Cambridge, Massachusetts. Amendments to the proposal are open to public comment until 18 May.

A second proposal, currently pending review at the White House, would change how the agency evaluates the costs and benefits of environmental and public-health regulations, much as it did in its re-evaluation of the mercury-emissions standards.

Taken together, the cost-benefit guidance and the transparency rules could help the Trump administration to justify removing regulations, and could hamper regulatory efforts by future administrations. These and other EPA decisions will be challenged in court, but scientists and environmentalists say that provides little solace. "They are rolling back progress, and we are losing time," Halpern says.