Trump Administration stymies US EPA's chemical carcinogenicity and toxicity assessments

The Trump Administration is stymying the US Environmental Protection Agency (EPA)'s assessments of chemical toxicity and carcinogenicity, according to the US Government Accountability Office (GAO), congressional testimony, and experts contacted by *The Lancet Oncology*.

Last year, the EPA Administrator's Office halted the Integrated Risk Information System (IRIS) programme's chemical safety assessments, including the planned expert review of a long-awaited report on formaldehyde, the GAO report released on March 4, 2019, concluded. Work was also postponed for a planned assessment of naphthalene, a component of jet fuel and a groundwater contaminant at many US military bases.

A separate formaldehyde assessment will now be undertaken by the EPA Office of Chemical Safety and Pollution Prevention (OCSPP), which is run by Nancy Beck, a former chemical industry lobbyist. Beck has recently come under fire over proposed guidelines for chemical safety evaluations that favour industry-sponsored studies and allow exclusion of some academic research.

"IRIS evaluations have been very important for many years because they are one of the basic building blocks that go into setting environmental standards and protecting human health," said Philip J Landrigan (Global Public Health Program at Boston College, Boston, MA, USA). "It is most unfortunate when such assessments become politicised. The analyses are done and peer-reviewed by scientists."

Nearly all IRIS staff (28 of 30 people) were tasked in 2018 to help OSCPP on a part-time basis to implement the US Toxic Substances Control Act, GAO found. But the move bolstered worries about IRIS's independence.

"We're very concerned there is an effort to get rid of certain assessments IRIS is conducting," said Richard Denison (Environmental Defense Fund, Washington, DC, USA).

In December, 2018, the list of priority chemicals IRIS was evaluating was cut from 22 to 13—part of a streamlining effort to improve inefficient programme management, according to EPA Administrator Andrew Wheeler (Washington, DC, USA). The criteria and process for the changes in IRIS's priorities have not been made public, Denison pointed out. He added: "The cut in IRIS assessments is bigger than those numbers imply. All but five of the ongoing assessments were removed from the list."

In 2018, IRIS assessments for hexabromocyclododecane (HBCD), acrylonitrile, n-butyl alcohol, and 5 phthalates were discontinued. On April 2, 2019, the agency announced that IRIS assessments have also been suspended for ammonia, chloroform, ethylbenzene, manganese, nitrite/nitrate, polyaromatic hydrocarbon mixtures, and uranium, and that naphthalene and formaldehyde assessments were not among the assessment priorities for 2019.

"Disemboweling is not the same as streamlining," noted Bernard D Goldstein (Environmental and Occupational Health, University of Pittsburgh, Pittsburgh, PA, USA) in a testimony at the March 27, 2019, congressional hearing on the future of IRIS. "IRIS is used extensively around the world as an authoritative source of information on chemical hazards and dose–response aspects of risk; IRIS assessments are also widely used by regulators in most US states," Goldstein told *The Lancet Oncology*.

Before the IRIS programme was created, different regulatory offices at EPA conducted their own chemical toxicity assessments. IRIS was established in 1985 to improve consistency in the agency's chemical toxicity and carcinogenicity evaluations—and, importantly, to serve as an honest broker of objective scientific assessments for the EPA.

"The process was set up so that risk assessment is done by an independent part of the agency that is focused on scientific research, away from the regulatory parts of the EPA," said Ivan Rusyn (Texas A&M University, College Station, TX, USA). Rusyn spoke to *The Lancet Oncology* after testifying in congress on March 27. He chairs the National Academies of Science (NAS) workshops committee to support development of IRIS's toxicological reviews. "Blurring the lines between the two is very unsettling. When you politicise the process, you can unintentionally or intentionally affect public health," Rusyn said. In 2014, the NAS recommended that EPA invest more resources in IRIS but the agency is now doing the opposite, Rusyn noted.

"The IRIS programme is one of the very few independent, non-industry-funded programmes for analysing the potential harm of toxic chemicals," wrote Jennifer Sass (Natural Resources Defense Council, Washington, DC, USA), in a blog post about attacks on IRIS's independence. "It is for exactly that reason that the chemical manufacturers and their representatives within the EPA are now moving to kill it," she told *The Lancet Oncology*.

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For more on **IRIS** see https://www.epa.gov/iris

For more on the **GAO report** see https://www.gao.gov/assets/700/697212.pdf

For more on **past delays in naphthalene in jet and rocket fuels** see **News** *Lancet Oncol* 2008; **9:** 518

For more on the **EPA-OCSPP proposal** see https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/application-systematic-review-tsca-risk-evaluations

For more on the **cuts to IRIS's list of chemical assessments** see https://cfpub.epa.gov/ncea/iris_drafts/atoz.cfm?list-type=erd and https://www.epa.gov/iris/iris-program-outlook

For more on the **congressional hearing on IRIS** see https://science.house.gov/hearings/epas-iris-program-reviewing-its-progress-and-roadblocks-ahead

For more on the **NAS workshops committee supporting development of EPA IRIS toxicological reviews** see https://www8.nationalacademies.org/pa/projectview.aspx?key=51377

For **Jennifer Sass's blog post about attacks on IRIS** see https://www.nrdc.org/experts/jennifer-sass/acctsca-attack-iris-formaldehyde-chloroprene-eto