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EPA moves toward limits on emissions from U.S. airlines

(Matt Nager/ Bloomberg, file)

By Chris Mooney June 10 2015

The U.S. Environmental Protection Agency moved Wednesday to start the process of regulating greenhouse gas emissions from the nation's fleet of commercial aircraft, a long-desired objective of environmental groups. But some fear the ultimate approach may prove too weak.

The agency released a proposed "endangerment finding," meaning that it is suggesting that aircraft engines may "contribute to the air pollution that causes climate change and endangers public health and welfare." That's what the EPA has found for emissions from an even larger transportation-related contributor to global warming: cars.

The EPA also gave notice that it is considering regulations on aircraft engines. But rather than moving ahead on its own, the agency plans to continue to work on with the United Nations' International Civil Aviation Organization (ICAO), which is expected to create its own global rules in early 2016. The EPA called Wednesday's announcement "an initial step in the process for EPA to adopt CO2 standards promulgated by ICAO in the future."

What has some environmental groups worried is this apparent deferral to an international body. "Passing the buck to an international organization that's virtually run by the airline industry won't protect our planet from these rapidly growing emissions," Vera Pardee, attorney for the Center for Biological Diversity, said in a statement.

According to the EPA, commercial aircraft contribute 11 percent of emissions from the U.S. transportation sector, and overall, 3 percent of U.S. emissions. That may

sound relatively small, and in comparison to cars or power plants, it definitely is.

But car emissions are already regulated, and power plant emissions would be soon under the proposed Clean Power Plan. If the airline industry grows substantially while remaining unregulated, its emissions as a percentage of the U.S. or global total will also grow.

Major growth in the domestic and global airline industry is indeed expected. The FAA projects that consumption of fuel will grow 49 percent in these aircraft from 2010 to 2035, with a corresponding increase in emissions.

"Aviation is a global industry, making it critical that aircraft emissions standards continue to be agreed upon at the international level," Nancy Young, environmental affairs vice president for the he U.S. airlines trade group Airlines for America, said in a statement Wednesday. "While we believe that any regulatory action must be consistent with both the agency's authority under the Clean Air Act and the future ICAO standard, today's action reconfirms the EPA's commitment to the ICAO process for achieving a global CO2 standard for new aircraft."

The EPA's move was long in coming; environmental groups including the Center for Biological Diversity and Earthjustice petitioned for it in 2007, and then sued over it in 2010.

"This is a prod to the industry, saying, your emissions are important enough from a health and welfare standpoint that they deserve to be controlled, but we are going to work with you, both domestically and internationally, to determine the extent to which they should be controlled," said William Becker, executive director of the National Association of Clean Air Agencies.

The proposed endangerment finding does not cover military planes or smaller planes, such as turboprops.

The key focus now will be on the ICAO process and whether it's adequate. "Typically what ICAO does is a very weak standard," adds Margo Oge, former director of the EPA's Office of Transportation and Air Quality, and author of the book "Driving the Future: Combating Climate Change with Cleaner, Smarter Cars." "Aircraft are the least-regulated source of transportation when it comes to emissions."

But the EPA's Christopher Grundler, head of the agency's Office of Transportation and Air Quality, defended the international approach Wednesday, observing that "an international standard would cover far more aircraft than simply a domestic standard, and would cover far more greenhouse gas reduction."

The precise concern about ICAO, said Oge, is that new regulations may only apply to new aircraft designs, rather than to all new aircraft. The former is a much narrower group than the latter. In its news release, the EPA asks for comment on which approach is effective: "whether the aircraft CO2 standard should apply to in-production aircraft…or whether the aircraft CO2 standard should apply only to completely new aircraft type designs."

"The fear is that this will allow the continuation of older engines, because they can escape tougher requirements, and create a disincentive for any of these manufacturers to redesign their engines," said the National Association of Clean Air Agencies' Becker.

But the EPA did suggest that it could go further than the ICAO standards do. "Once an international standard is finalized by ICAO, member states are then required to adopt standards that are of at least equivalent stringency to those set by ICAO," the agency noted.

There are also other intriguing ideas to reduce aircraft emissions that go beyond what anyone is proposing. One involves adding more automation for air traffic control, which could allow flights to take more fuel-efficient paths — something that NASA has been studying.

"Automation would mean more efficient routing, and particularly less time spent going up and down as you're coming to land," said Graham Spinardi, a social scientist at the University of Edinburgh who published a study on the idea — and why it has not caught on — last year in the journal Energy Research & Social Science.