

# EPA Proposes Endangerment Finding for Lead Emissions from Aircraft that Operate on Leaded Fuel

The EPA Administrator is proposing to find that lead emissions from certain aircraft engines cause or contribute to lead air pollution that may reasonably be anticipated to endanger public health and welfare under section 231(a) of the Clean Air Act. The EPA is not at this time proposing aircraft engine lead emission standards.

## Background

Protecting children's health and reducing lead exposure are two of EPA's top priorities. The scientific evidence demonstrates that low levels of lead in children's blood can have harmful effects on cognitive function in children, including reduced IQ and decreased academic performance. There is no evidence of a threshold below which there are no harmful effects on cognition in children from lead exposure.

## Emissions of Lead from Aircraft Engines

The majority of aircraft that operate on leaded aviation gasoline are piston-engine aircraft. These are typically small aircraft that carry 2-10 passengers. Jet aircraft used for commercial transport do not operate on a fuel containing lead.

Piston-engine aircraft are the largest single source of lead emissions to the air in the U.S., contributing 70% of the lead entering the air annually. The emissions of lead from aircraft operating on leaded fuel cause elevated levels of lead in air near airports.

## Proposed Action

The EPA has issued a proposed determination that lead emissions from aircraft engines that operate on leaded fuel cause or contribute to air pollution that may reasonably be anticipated to endanger public health and welfare under section 231(a) of the Clean Air Act. Thus, this proposed action encompasses both proposed endangerment

and proposed cause or contribute findings, though for convenience, we sometimes refer to them collectively as the proposed “endangerment finding.” After evaluating comments on the proposal, we plan to issue any final determination in 2023. See below for ways to comment on this EPA proposal.

## Next Steps

EPA’s consideration of the endangerment finding is a first step toward application of EPA’s and the Federal Aviation Administration’s (FAA) statutory authorities to address lead pollution from aircraft. The proposed finding, if finalized, would not apply new requirements to entities other than EPA and FAA. EPA is not at this time proposing aircraft engine lead emission standards.

If EPA makes a final determination that lead emissions from aircraft engines cause or contribute to lead air pollution that may reasonably be anticipated to endanger public health or welfare, only then would EPA propose regulatory standards for lead emissions from aircraft engines. Such a final determination also would trigger the FAA’s statutory mandate to prescribe standards for the composition or chemical or physical properties of an aircraft fuel or fuel additive to control or eliminate aircraft lead emissions.

If EPA were to propose lead emission standards for aircraft engines, we would consult with FAA and use the public rulemaking processes that include notice and comment and an opportunity for a public hearing.

Piston-engine aircraft play an important role in transportation in the U.S., particularly in Alaska. EPA and FAA are committed to working together and with the full range of stakeholders, including stakeholders from Alaska, to determine the appropriate subsequent regulatory actions.

In support of the objective to transition the fleet of piston-engine aircraft to an unleaded future, the FAA has two integrated initiatives focused on transitioning safely away from the use of leaded fuels: the Piston Aviation Fuels Initiative (PAFI) and the FAA-industry partnership to Eliminate Aviation Gasoline Lead Emissions (EAGLE). For information about these initiatives, go to [www.faa.gov/about/initiatives/avgas](http://www.faa.gov/about/initiatives/avgas).

The FAA has approved unleaded fuels for safe use in certain aircraft through the Supplemental Type Certificate (STC) process. More unleaded aviation gasoline formulations are expected to be authorized by the FAA in the near term for broad use in piston-engine aircraft.

## Participation

We welcome your comments on the proposed endangerment finding and your participation in the public hearing for this proposed action.

For information on submitting comments and registering for the public hearing for this action, please see EPA’s website:

[www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-lead-emissions-aircraft](http://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-lead-emissions-aircraft)

## **For More Information**

You can access the proposal on EPA's Office of Transportation and Air Quality Website:  
[www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-lead-emissions-aircraft](http://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-lead-emissions-aircraft)

For more information, contact the EPA, Office of Transportation and Air Quality at E-mail:  
[aircraft.lead@epa.gov](mailto:aircraft.lead@epa.gov)