

FAQ on Lead-Free Fuel

The transition from leaded aviation fuel (commonly referred to as AvGas) to lead-free fuel presents an opportunity for the industry to reduce emissions and improve air quality. It's a transition that the Port of Portland fully supports and advocates for as a partner in the Federal Aviation Administration's (FAA) Eliminate Aviation Gasoline Lead Emissions (EAGLE) initiative. The work is underway, but making the switch requires changes to both federal regulation and supply chain infrastructure—and those changes take time.

Below are frequently asked questions about the transition process and the Port of Portland's role in it.

What type of aircraft use leaded fuel?

Smaller piston engine aircraft use leaded fuel—not commercial jets. These are older aircraft that were designed to run on leaded fuel to prevent engine trouble in flight.

Is lead-free fuel approved for piston engine aircrafts?

The FAA recently approved a new unleaded fuel (G100UL) for piston engine aircraft. It's an important step toward broadening which aircraft can safely use lead-free fuel, but there are still barriers to it being widely adopted. First, production and commercial availability are extremely limited, making it expensive and difficult to source. And second, operators need to obtain additional certification—known as a Supplemental Type Certificate (STC)—before they can use it in their aircraft.

Can the Port of Portland mandate that aircraft at Hillsboro Airport switch to lead-free fuel?

No, only the FAA has that authority. The Port of Portland can't require operators at our airports to use lead-free fuel nor can we prohibit the sale of leaded fuel while it is FAA-approved (which it currently is).

What is the Port of Portland doing to advocate for the transition?

While the Port isn't a decision maker on this issue, we recognize that we have a role to play. We're actively participating in the [FAA's EAGLE initiative](#) to support eliminating leaded fuel by 2030, if not sooner, and to increase access to lead-free fuel. It's important work that will improve air quality for communities around general aviation airports.

Separately, we conducted a feasibility study to better understand the benefits and barriers—financial or otherwise—that could support or deter operators from making the switch. We'll use the findings to inform how we can help incentivize the sale and use of unleaded fuel and hopefully help our partners meet the transition goal ahead of schedule.

What needs to happen for more piston engine aircraft to switch to lead-free fuel?

On October 18, 2023, the EPA [issued a “final determination”](#) that lead emissions from aviation fuel contribute to air pollution and are a public health concern. Now, the EPA and FAA will be obligated to amend fuel regulations, which should help prompt two fundamental changes:

1. More unleaded fuels, many of which are in development, need to be approved by the FAA. Ideally, that includes a universal lead-free fuel that’s approved for use in all aircrafts *without* the need for an STC.
2. The supply chain needs to adapt to make them widely available, which means commercializing production so it can be distributed at scale and at a reasonable cost.

Many piston engine aircraft rely on leaded fuel for safe operation, so it will need to be a coordinated, multi-agency effort to bring about this critical change.