

Cabin Air Safety Act of 2019

The ***Cabin Air Safety Act of 2019 (S. 1112/H.R. 2208)*** requires training for aviation crewmembers to respond and report smoke or fume incidents on board commercial flights and requires operators to install carbon monoxide detectors to monitor the air supply in the passenger cabin.

The air that passengers and crew members breathe on airplanes can be contaminated with toxic chemicals. On most commercial flights, air for cabin pressurization and ventilation comes from the engine compressor. At cruise altitude, the pressure and temperature of the air is too low for passengers and crew to breathe. So, the outside air is drawn into the operating aircraft engines where it gets compressed and heated. It's called "bleed air" because it's bled off the engines. The bleed air is then cooled, mixed with recirculated air, and pumped into the pressurized aircraft cabin. Believe it or not – there is no filter between the engines and the cabin, so any oil or hydraulic fluid that leaks or spills into the "bleed air" upstream is heated and delivered directly to the occupants, causing a fume event. This bill will help reporting of these events in order to determine next steps.

Oil fumes are often described as smelling like "dirty socks," or as being musty, moldy, or foul. Hydraulic fluid fumes often have a distinctive acrid odor. Inflight, both types of fumes can contain carbon monoxide gas. Exposure to carbon monoxide can cause acute symptoms like dizziness, fainting, headache, and delayed responses. The effects of exposure to carbon monoxide are more pronounced inflight because the ambient air already contains less oxygen than on the ground.

The symptoms that flight attendants have reported inflight range from headaches, nausea, and fatigue, to fainting, cognitive deficits, and dizziness. Flight attendants need to be alert to monitor cabin safety and security, and attend to passengers. Pilots have also reported ill effects during fume events and the negative impacts on flight safety have been documented since the 1930s.

The *Cabin Air Safety Act* provides training for flight attendants, pilots, airline maintenance and other aviation first responders on how to respond and report smoke and fume incidents on board aircraft.

Currently, there are no fume event reporting rules for flight attendants so it is difficult to estimate the frequency of fume events and the health and safety impact on the industry. The *Cabin Air Safety Act* would require the FAA to develop a standardized form to collect fume event data and to investigate fume/smoke events in order to identify the cause of the event. The FAA would publish the fume event data on a publicly accessible website, after removing personal details of the crew and passengers.

Finally the *Cabin Air Safety Act* calls for carbon monoxide detectors to be installed, like they are in homes, to provide pilots with early warning of a fume event and to support maintenance workers to identify and fix the source of fumes. Today the only “sensors” on board and aircraft are the noses of the crew and passengers.

The *Cabin Air Safety Act of 2019* is a common sense piece of legislation that would provide meaningful steps forward keeping oil fumes out of the cabin air supply.