

## EPA Issues First-Ever Airplane Greenhouse Gas Emission Standards

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On December 28, 2020, the EPA finalized its first greenhouse gas (“GHG”) emission standards that apply to certain new commercial airplanes, including all large passenger jets. According to the EPA, covered aircrafts<sup>[1]</sup> subject to the rule make up twelve percent of greenhouse gas emissions from the transportation sector, and three percent of total GHG emissions in the United States.<sup>[2]</sup>

The final rule adopts standards equivalent to the carbon dioxide (“CO<sub>2</sub>”) emissions standards issued by the International Civil Aviation Organization (“ICAO”) in 2017 in an effort to create international uniformity in aviation regulations and standards. Without uniformity, nations could ban the use of any non-ICAO-complying airplane within their airspace. Further, if EPA’s regulations were not at least as stringent as ICAO standards, U.S. airplane manufacturers could be forced to seek CO<sub>2</sub> emissions certification from an aviation certification authority of another country, rather than the Federal Aviation Administration (“FAA”), in order to market airplanes for international operation.

The fuel-efficiency-based metric established by ICAO and adopted by the EPA in the final rule is a mathematical function that incorporates the specific air range (“SAR”) of an airplane/engine combination (a measure of performance in units of kilometer/kilogram of fuel) and the reference geometric factor (“RGF”), a measure of fuselage size. The metric controls both CO<sub>2</sub> and nitrous oxide (“N<sub>2</sub>O”). The regulations also implement ICAO test procedures whereby SAR value is measured at three specific operating test points. A composite of those results is used in the metric to determine the engine’s compliance.

The regulations do not apply to airplanes currently in use. Rather, the EPA regulations will apply to a new type design upon the effective date (i.e., a design that has not previously been type certificated under title 14 CFR Part 21) and in-production models (i.e., an existing design that had been type certificated under title 14 CFR, Part 21 prior to the effective date of the GHG standards) on or after January 1, 2028.

The final rule has not yet been published in the *Federal Register*, but will be effective as of the date of publication. Under CAA section 232, the FAA is required to issue regulations to enforce compliance with the standards. The FAA anticipates publishing a Notice of Proposed Rulemaking in 2021.

[1] The EPA defines “U.S. covered aircraft” to be subsonic jet aircraft with a maximum takeoff mass (MTOM) greater than 5,700 kilograms and subsonic propeller driven aircraft (e.g., turboprops) with a MTOM greater than 8,618 kilograms.

[2] <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P1UN.PDF?Dockey=P100P1UN.PDF>

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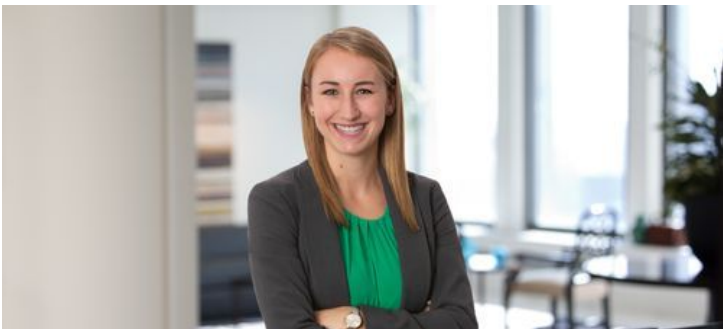
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