

# EPA Proposed NO<sub>x</sub> Emission Standards for Aircraft Gas Turbine Engines

The U.S. Environmental Protection Agency (EPA) is publishing a proposed rulemaking to adopt the NO<sub>x</sub> emission standards approved by the United Nation's International Civil Aviation Organization (ICAO).

## Overview

EPA is proposing to adopt emission standards and related provisions for aircraft gas turbine engines with rated thrusts greater than 26.7 kilonewtons. These engines are used primarily on commercial passenger and freight aircraft. The proposal contains standards and related provisions that were either previously adopted by ICAO, or agreed on at ICAO's Committee on Aviation Environmental Protection (CAEP) in 2010. Specifically, EPA is proposing two new tiers of more stringent emission standards for oxides of nitrogen (NO<sub>x</sub>). These are referred to as the Tier 6 (or CAEP/6) standards and the Tier 8 (or CAEP/8) standards.

The proposed standards would apply differently depending on the date the engine model received its original airworthiness certificate as follows.

- Engine models that were originally certificated prior to the effective date of the proposed rule may continue production without meeting the proposed Tier 6 standards through December 31, 2012. After that date, these engines must comply with the proposed Tier 6 standards (this date is generally referred to as the Tier 6 production cutoff). This delay in complying with the proposed Tier 6 standards for previously certificated engine models is intended to allow for an orderly transition to the proposed Tier 6 standards.
- Engine models that were originally certificated between the effective date of the proposed rule and December 31, 2013 must comply with the proposed Tier 6 standards.

- Engine models that were originally certificated beginning on or after January 1, 2014 must comply with the proposed Tier 8 standards. EPA anticipates establishing a future production cutoff to require all engine models that were originally certificated before the above date to comply with the proposed Tier 8 standards. We will consider this in a future action after first pursuing it within ICAO/CAEP.

EPA is also proposing several additional changes that would affect all aircraft gas turbine engines that are subject to current emission requirements. First, EPA is proposing to clarify when a design variation of a previously certified engine model causes the emission characteristics of the new version to become different enough from its parent engine that it must conform to the most current emissions standards. Second, EPA is proposing amendments to the emission measurement procedures. These revisions are primarily intended to reflect current certification practices. Finally, EPA is proposing to require all gas turbine and turboprop engine manufacturers to report to EPA, emission data and other information necessary for the purpose of conducting emission analyses and developing appropriate public policy for the aviation sector.

These proposed regulatory requirements, except a portion of the proposed engine manufacturer reports, have already been adopted or are actively under consideration by the ICAO. The proposed requirements are consistent with the United Nations Convention on International Civil Aviation.

## Public Participation Opportunities

Comments will be accepted for 60 days after the date that the proposal is published in the Federal Register. All comments should be identified by Docket ID No. EPA-HQ-OAR-2010-0142 and submitted by one of the following methods:

Internet: [www.regulations.gov](http://www.regulations.gov)

E-mail: [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov)

Mail:

Environmental Protection Agency

Mail Code 2822T

1200 Pennsylvania Avenue NW

Hand Delivery:

U.S. Environmental Protection Agency

EPA Headquarters Library

EPA West Building

Room 3334

1301 Constitution Avenue NW

Washington, DC

## For More Information

You can access the rule and related documents on EPA's Office of Transportation and Air Quality (OTAQ) Web site at:

[www.epa.gov/otaq/aviation.htm](http://www.epa.gov/otaq/aviation.htm)

For more information on this proposal, please contact the Assessment and Standards Division at:

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