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U.S. Environmental Protection Agency
Air and Radiation Docket and Information Center
Docket ID No. EPA-HQ-OAR-2014-0828
Mail Code: 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

To Whom It May Concern:

The National Association of Clean Air Agencies (NACAA) appreciates this opportunity to comment on the U.S. Environmental Protection Agency's (EPA) *Proposed Finding that Greenhouse Gas Emissions from Aircraft Cause or Contribute to Air Pollution that May Reasonably Be Anticipated to Endanger Public Health and Welfare and Advance Notice of Proposed Rulemaking*, as published in the Federal Register on July 1, 2015 (80 Fed. Reg. 37,757). NACAA is a national, non-partisan, non-profit association of air pollution control agencies in 41 states, the District of Columbia, four territories and 116 metropolitan areas. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based upon that experience. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country.

Endangerment Finding

First, with respect to the endangerment finding, NACAA commends EPA for its proposal to 1) find that greenhouse gas (GHG) concentrations in the atmosphere endanger the public health and welfare of current and future generations within the meaning of section 231(a) of the Clean Air Act (CAA), 2) find that GHG emissions from certain aircraft engine classes cause or contribute to "air pollution" that endangers public health and welfare and 3) use the same definition of "air pollution" under section 231(a) as the agency used in making its 2009 Endangerment Finding under CAA section 202(a) related to motor vehicles namely, the same six well-mixed GHGs that together were identified as the relevant "air pollution": carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

For its proposed finding under section 231, EPA relies primarily on the expansive scientific and technical evidence in the record that supported the 2009 Endangerment Finding.

In that finding, which NACAA supported,¹ EPA concluded that GHGs endanger public health and public welfare. For its current proposed finding under section 231, EPA also gave careful consideration to new, major, peer-reviewed scientific assessments released subsequent to the closing of the administrative record for the 2009 Endangerment Finding. In doing so, the agency found no information suggesting that it would be reasonable to reach a different conclusion now than it did in 2009. Instead, the agency found that, in many cases, the new assessments strengthen and add to the already comprehensive scientific evidence that GHGs in the atmosphere may reasonably be anticipated to endanger public health and welfare, thus providing further support for this proposed finding under section 231.

EPA states in its proposal that the 2009 Endangerment Finding is “firmly established and well settled” and that there is no need to reopen or revisit it in order to make an additional finding under section 231. NACAA agrees and supports EPA’s proposal to make such an additional finding.

Advance Notice of Proposed Rulemaking

EPA’s proposed finding under section 231 sets the stage for harmonizing international and U.S. aircraft CO₂ emissions standards. With the International Civil Aviation Organization (ICAO), in which the U.S. participates, expected to adopt an international standard as early as 2016, we appreciate EPA’s request, through the Advance Notice of Proposed Rulemaking (ANPR), for input on establishing that standard and the potential use of CAA section 231 to propose, adopt and implement the ICAO standard domestically. NACAA endorses the United States’ continued support for adopting an international standard as well as EPA adoption of a domestic standard that will address this source category in a significant way.

According to EPA, aircraft represent the single largest U.S. transportation source of GHG emissions not yet subject to GHG standards, emitting 11 percent of U.S. transportation sector GHG emissions, 3 percent of total U.S. GHG emissions, 29 percent of GHG emissions from all aircraft worldwide and 0.5 percent of total worldwide GHG emissions. On an international scale, in 2010, global aircraft GHG emissions were 11 percent of global transportation sector GHG emissions and 2 percent of total global GHG emissions.

Clearly, this is a sector that merits regulation commensurate with other transportation sectors. ICAO and EPA must establish as rigorous and comprehensive a regulatory package as possible. In the U.S., this is especially critical since state and local air pollution control agencies do not have authority under the federal CAA to directly regulate aircraft emissions beyond the limits set by EPA. Accordingly, NACAA offers the following overarching comments on the three key issues EPA highlights in the ANPR: applicability, timing and stringency of an aircraft CO₂ emissions standard.

Applicability – ICAO, through its Committee on Aviation Environmental Protection, is considering various approaches for the applicability of an aircraft CO₂ standard, with the fundamental question being whether the standard should apply to in-production aircraft or only to completely new aircraft type designs. NACAA believes it is essential that the standard apply to in-production aircraft and new type designs and that the definition of “in-production” be any covered aircraft produced after the compliance deadline. We

¹ NACAA Comments on EPA’s Proposed Endangerment and Cause or Contribute Findings for GHGs under Section 202(a) of the Clean Air Act (June 17, 2009), http://www.4cleanair.org/sites/default/files/resources/NACAA_Endangerment_Comments_FINAL-lthd.pdf.

simply cannot afford to forego the emissions reductions to be garnered from regulating in-production engines and find no persuasive reason to forego them.

Timing – On the issue of timing, NACAA recommends that the standard take effect as soon as possible – by 2020 for new aircraft types and by 2023 for in-production aircraft – since there is no reason to delay the effective date.

Stringency – NACAA strongly encourages ICAO and EPA to propose an aircraft CO₂ emissions standard that is as stringent as possible and that the standard be technology forcing rather than technology following. A new standard that is technology following and applies only to new aircraft type designs will accomplish little, if anything, more than “business as usual” and will fail to take advantage of the opportunity to adequately and appropriately regulate aircraft GHG emissions. Rather than basing a new aircraft CO₂ emissions standard on currently available technology, a new standard must take into account aircraft design and engine technologies that are under development. Further, we believe EPA’s proposal should compel manufacturers to reach for new technologies that will reap greater GHG emissions reductions. Therefore, NACAA recommends that new aircraft design types be subject to higher-stringency, technology-forcing standards and that all in-production aircraft be required to meet the same higher-stringency standards by a specified date or be phased out. We are open to discussing whether 2020 is the appropriate compliance date for such technology-forcing standards for new aircraft design types or whether compliance should be phased in in two tiers over the course of three to five years with the first tier taking effect in 2020.

NACAA would also like to touch briefly on a few additional issues related to an aircraft CO₂ emissions standard.

First, we recommend that engines associated with, but not part of, an aircraft also be addressed by an aircraft CO₂ standard. Key among these are auxiliary power units.

Second, we recommend that EPA pursue opportunities for establishing standards for addressing emissions from in-use aircraft, which, for example, can be retrofitted with winglets, which can reduce draft and save fuel.

Third, although a CO₂ standard is at issue here, there is also the potential for additional nitrogen oxide (NO_x) emissions reductions from aircraft. We encourage EPA to analyze this potential and take steps to maximize reductions. This could be accomplished in several ways including by requiring that all in-production aircraft use engines meeting the Tier 8 ICAO NO_x standard by 2018 or be phased out and by proposing more stringent (post Tier 8) ICAO standards for NO_x for engines used in in-production aircraft and new aircraft design types. We note also that reductions in NO_x bring with them the potential for co-benefit reductions in nitrous oxide, one of the six well-mixed GHGs that together are identified as the relevant “air pollution” under EPA’s proposed endangerment finding.

Fourth, NACAA also recommends that a reporting requirement for aircraft cruise CO₂ emissions rates be proposed. The data collected from such reporting would not only provide important insight into regulatory compliance but also inform future policy decisions.

Finally, while NACAA supports an international aircraft CO₂ emissions standard established through ICAO, a domestic standard that reaps the full measure of potential reductions from this source

category is critically important. Therefore, we urge that EPA be prepared to exercise its authority under the Clean Air Act and Article 38 of the Chicago Convention on International Civil Aviation to propose and adopt a more rigorous program and standards than ICAO if the international standard falls short – including with respect to the items we have addressed in these comments.

Once again, NACAA appreciates the opportunity to provide our perspectives on these important issues and looks forward to working with EPA and other stakeholders as the agency moves forward. If you have any questions, please contact either of us or Nancy Kruger, Deputy Director of NACAA, at (202) 624-7864.

Sincerely,



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