



November 29, 2022

Submitted via email to: cob@aqmd.gov

Clerk of the Boards
South Coast Air Quality Management Governing Board
21865 Copley Drive
Diamond Bar, CA 91765

Re: Airlines for America® Comments on the *Final Draft 2022 Air Quality Management Plan*

Dear Sir/Madam:

Airlines for America® (A4A), the trade association for the leading U.S. passenger and cargo airlines,¹ appreciates the opportunity to comment on the South Coast Air Quality Management District's (District or SCAQMD) *Draft Final 2022 Air Quality Management Plan (Draft Final AQMP)* and the associated materials.² A4A previously submitted comments on the version of the AQMP made available on May 6, 2022 (*Draft AQMP*) and the California Air Resources Board's (CARB) *Proposed 2022 State Strategy for the State Implementation Plan* (dated August 12, 2022; the *Proposed State SIP Strategy*), both of which include various concepts and potential measures that are included in the *Draft Final AQMP*; A4A incorporates those comments here by reference.³

As detailed in those comments, A4A and our members embrace our responsibility to address the environmental impacts associated with aviation operations and have a very strong environmental record that demonstrates our commitment to reducing impacts even as we continue to provide air transportation services critical to maintaining the growth and vitality of the national, California and local economies. As the District knows, that record includes a long history of working with the District and CARB to constructively and actively address environmental impacts associated with aviation, including impacts on local air quality. A4A and our members remain committed to working with the District and support its efforts towards attaining the federal National Ambient Air Quality Standards (NAAQS), including the Ozone and fine Particulate Matter (PM 2.5) standards.

We hope these comments – focused on aspects additional to those included the *Draft AQMP* – will be helpful to the District as it considers the *Draft Final AQMP*.

¹ A4A's members are Alaska Airlines, Inc.; American Airlines Group Inc.; Atlas Air, Inc.; Delta Air Lines, Inc.; Federal Express Corporation; Hawaiian Airlines, Inc.; JetBlue Airways Corp.; Southwest Airlines Co.; United Airlines Holdings, Inc.; and United Parcel Service Co. Air Canada, Inc. is an associate member.

² Posted [here](#).

³ See *Airlines for America Comments on the South Coast Air Quality Management District's Draft 2022 Air Quality Management Plan* (July 5, 2022) (available [here](#)), *Airlines for America Comments on CARB's Proposed 2022 State Strategy for the State Implementation Plan* (Sept. 22, 2022) (available [here](#)).

Comments

As an initial matter, we note again that as a planning document the AQMP does not formally propose any action, measure, initiative, policy or other regulatory mechanism and reiterate that A4A and our members expressly reserve any and all rights to comment when and if the District (or any other entity, including CARB or any agency of the California or United States governments) acts to implement any aspect of the AQMP.

Further, the emissions reductions and costs expected to result from many of the aviation-related measures identified in the AQMP have not yet been accurately or fully quantified, making it impossible to assess the expected burdens associated with these measures.⁴ Estimates for emissions reductions, costs, and cost-effectiveness are provided for two aviation-related measures listed in the “Primarily-Federally and Internationally Regulated Sources – Federal Action Needed” category. Reductions in NOx emissions in tons per day (tpd) for the “Cleaner Fuel and Visit Requirements for Aviation” and “Airport Aviation Emissions Cap” measures are estimated at 10.2 and at 9.2, respectively.⁵ The cost-effectiveness for each of these measures is estimated at \$84,200/ton.⁶ However, the AQMP does not provide a clear explanation of how these estimates were calculated. We note that the estimated incremental costs (present value from 2023-2037) for these measures are enormous: over \$1.9 billion for the “Cleaner Fuel and Visit Requirements for Aviation” measure and \$1.7 billion for the “Airport Aviation Emissions Cap” measure.⁷ However, the basis for these estimates, the economic analysis supporting the Proposed 2022 State SIP Strategy, lists these costs at \$5.9 billion and \$9.4 billion, respectively.⁸ Again, it is unclear from the AQMP and the information provided how these estimates were made.⁹ In addition, because they are not separately defined, the delineation between the two measures is unclear and may result in double-counting toward the total Aggregate Emissions Reductions.¹⁰ As such, the District has not provided the information necessary to provide meaningful notice and opportunity to comment on these measures.

⁴ *Draft Final AQMP* (September 2, 2022). See Table 4-3 at p. 4-27 (emissions reductions for MOB-04 listed as “TBD”) and Table 6-4 at p. 6-22 (cost-effectiveness of MOB-04 listed as “TBD”); Table 4-9 at p. 4-46, (emissions reductions for Primarily-Federally and Internationally Regulated Sources – CARB Measures: Future Measures for Aviation Emission Reduction listed as “NYQ”) and Table 6-5 at p. 6-23-24 (cost-effectiveness of Future Measures for Aviation Emissions Reductions listed as “TBD” and Dollars/Ton for More Stringent Aviation Engine Standards listed as “TBD”).

⁵ See Table 4-9 at p. 4-47.

⁶ See Table 6-5 at p. 6-23.

⁷ See *Draft Final Socioeconomic Report* Table 2-1B at p. 2-6

⁸ See *Proposed 2022 State SIP Strategy, Appendix A: Economic Analysis* at p. 187 and Table A-7 at p. 190.

⁹ The Economic Analysis Indicates the costs were “estimated using the measure’s NOx reductions and average cost per ton NOx of all other SIP measures with cost data.” While this implies the methodology used, it does not show how the methodology was actually used, allowing stakeholders to understand precisely what the basis for the cost estimate is. In addition, it is unclear why “an average cost of a per ton NOx of all other SIP measures with cost data was used” when and why that was considered relevant to the aviation sector, which faces unique challenges. Further, it is unclear how this “average cost per ton NOx” relates to the \$84,200 / ton figures provided for these measures in Table 6-5.

¹⁰ *Draft Final AQMP*, at 4-47.

A4A has previously registered similar concerns with the District in our July 5, 2022, comments regarding the proposed “Cleaner Fuel and Visit Requirements for Aviation” measure within the Draft AQMP, and with CARB, in our December 7, 2020, comments on its *Draft Mobile Source Strategy* (we explicitly incorporate both comments by reference here).¹¹ A4A has repeatedly pointed out that this measure cannot be implemented consistent with federal law as U.S. EPA does not have authority to regulate either aviation fuels or aircraft operations.

We also highlight our very significant concerns regarding items added to the *Draft Final AQMP* which were not included in the *Draft AQMP*. The *Draft Final AQMP* includes language that specifically identifies two aircraft (the Airbus 320-NEO and the Airbus 319-100 series) “as the cleanest options for NOx emissions.”¹² The selection of specific low NOx emissions airplanes grossly oversimplifies the realities and practicalities of operating air services to, from, and within California, and therefore risks misleading the public about the choices airlines make about which aircraft they purchase and operate on routes serving California. The airplanes identified by CARB staff are amongst the smallest airplanes typically serving California and are wholly unrepresentative of airplanes that serve international routes. Even for shorter range domestic and intra-California flights, one given airplane type is not necessarily appropriate for a given city pair. In addition, engine emissions data are reported according to their engine type identifiers, and not by a specific airplane model. Airplanes will typically be available from manufacturers with varying engine specifications, thrust rating, and combustor type, all of which can significantly affect the certified Landing and Take-off (LTO) cycle NOx engine emissions. For example, the range of lowest to highest certified NOx emissions for engine variants available on A320neo family airplanes can vary by more than the 40% referenced in the statement as being the asserted relative advantage of these aircraft types. In addition, the technological trade-off between aviation NOx and CO2 emissions needs to be considered in devising any emissions reduction strategy.¹³

A4A is also very concerned that the District has chosen to include the “Airport Aviation Emissions Cap” measure in the *Draft Final AQMP*. Again, we have addressed this issue in previously filed comments¹⁴ and urge the District to eliminate the proposed measure from the AQMP.

* * *

In closing, A4A agrees that “[i]n finding the most cost-effective and efficient path to meet multiple deadlines for multiple air quality and climate objectives, an integrated planning approach is optimal.”¹⁵ From A4A and our members’ perspective, this is certainly true for the

¹¹ See *Airlines for America Comments on the South Coast Air Quality Management District’s Draft 2022 Air Quality Management Plan* (July 5, 2022) (available [here](#)), *Airlines for America Comments on CARB’s Draft 2020 Mobile Source Strategy* (December 7, 2020) (available [here](#)).

¹² *Draft Final AQMP* at p. 4-56.

¹³ See *E.g.*, Skowron, Agnieszka, Lee, David S., De Leon, Ruben Rodriguez, Lim, Ling L., Owen, Bethen (2021). Greater fuel efficiency is potentially preferable to reducing NOx emissions for aviation’s climate impacts. Nature Communications. <https://www.nature.com/articles/s41467-020-20771-3>

¹⁴ *Airlines for America Comments on CARB’s Proposed 2022 State Strategy for the State Implementation Plan* at 12-13.

¹⁵ *Revised Draft AQMP*, at 1-24.

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aviation sector. We request that SCAQMD and California partner with us and others in the aviation industry so that together, we can take the necessary steps to attain the NAAQS.

Thank you for your consideration of our comments. Please do not hesitate to contact us if you have any questions.

Sincerely yours,



Tim A. Pohle
Vice President
Environmental Affairs
Airlines for America
tpohle@airlines.org



Kenley Farmer
Director
Environmental Affairs
Airlines for America
kfarmer@airlines.org