



Delivered Via Email

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Dr. Sang-Mi Lee, Planning and Rules Manager
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA
91765-4178

LAX

Van Nuys

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**RE: LOS ANGELES INTERNATIONAL AIRPORT SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT MEMORANDUM OF UNDERSTANDING (MOU)
ANNUAL REPORT FOR CALENDAR YEAR 2021**

Dear Dr. Lee:

Los Angeles International Airport (“LAX”, “Airport”) has prepared the annual report as requested by the South Coast Air Quality Management District (“South Coast AQMD”). On December 13, 2019, a Memorandum of Understanding (“MOU”) was entered into by the South Coast AQMD and the Airport. The purpose of this annual report is to quantify the estimated emission reduction benefits in the Basin through implementation of the three (3) voluntary LAX measures from LAX’s Air Quality Improvement Measures (AQIM). This MOU does not create State Implementation Plan (SIP) creditable reductions, but it identifies specific voluntary measures and provides the means for the South Coast AQMD to quantify the emission reductions from the MOU Measures to obtain SIP credits.

There are three measures in the LAX MOU, as related to non-aircraft commercial passenger airport mobile sources. LAX monitors the implementation of the MOU Measures and provides data and annual emissions inventory reports to South Coast AQMD as specified in MOU Attachment A for Measures 1 to 3. The report does not apply to any source or operation of any source that is not specifically identified in the MOU Measures.

The 2021 data is the second reporting year. While 2020 was intended to establish a program baseline, the novel coronavirus (COVID-19) emerged in February 2020 and significantly disrupted airport operations. The airport, airlines, ground support equipment (“GSE”) operators, and many related third parties continue to respond to COVID-19 impacts.



MOU Measure No. 1 – Ground Support Equipment (GSE)

MOU Measure No. 1 is a measure for ground support equipment. This measure requires that all ground support equipment operators at LAX achieve fleet average NOx + Hydrocarbon emission factors of 1.8 and 1.0 grams per brake horsepower-hour (g/bhp-hr) by January 1, 2023 and January 1, 2031, respectively. To achieve this measure, LAWA has been working with Airport tenants to achieve the performance targets by specified dates through accelerated turnover to cleaner equipment.

The 2021 report shows the fleet averaged NOx emission factor for commercial GSE at LAX is 1.52 g/bhp-hr, which is lower than the 2017 AQIM baseline fleet averaged NOx emission factor of 2.24 g/bhp-hr and exceeded (i.e., is better than) the 2023 target. LAWA will continue to work with airlines and third party GSE operators to encourage the continued conversion of GSE, and to support any future electrical infrastructure changes that may be necessary. LAWA is conducting a GSE infrastructure study to evaluate the feasibility of comprehensive GSE pooling and electrical charging infrastructure. The intention is to consolidate GSE facilities and expand electric GSE use at the Airport.

MOU Measure No. 2 – LAX Alternative Fuel Vehicle Incentive Program

MOU Measure No. 2 is a measure based on LAWA's LAX's AQIM measure, the LAX Zero and Near-Zero Emission Heavy-Duty Vehicle Incentive Program and is attached to and a part of the MOU between LAWA and South Coast AQMD. LAWA will implement an incentive program that will distribute up to \$500,000 dollars in funding to applicants based on the "incremental cost" differential of the zero or near-zero emission vehicles as compared to conventionally-fueled equivalents with a Gross Vehicle Weight Rating (GVWR) of 14,001 pounds or greater by December 31, 2021.

As of 2021, LAWA has distributed \$325,000 (\$20,000 in 2021) for 15 vehicles. LAWA has ensured full subscription of the incentive program to 7 applicants with replacement of 23 vehicles. An additional \$175,000 is expected to be distributed by the end of the Fiscal Year 2023.

MOU Measure No. 3 – LAX Zero-Emissions Bus Program

MOU Measure No. 3 is a measure based on LAWA's LAX's AQIM measure, the LAWA Zero- Emission Bus Program to convert LAWA-owned buses at LAX to zero-emission buses and is attached to and a part of the MOU between the Airport and South Coast AQMD. The Measure requires LAWA to replace 20% and 100% of the LAWA-owned and operated buses with zero-emission buses by January 1, 2023 and January 1, 2031, respectively.

In 2021 LAX reported 124 buses in its fleet. Of the 124 buses, 20 are electric buses (16% of its bus fleet). Two CNG buses were scrapped in 2021. Most of the 2021 annual Vehicle Miles Travel (VMT) are attributed to the CNG vehicles operated in the Central Terminal Area. The electric buses are dedicated airfield buses and have short routes used to transport passengers between terminals on the airfield. LAX's bus charging infrastructure has been online since March 2020 and can support future electric buses as they are added to the fleet. Efforts to procure electric vehicles have been slowed due to COVID-19 impacts.

LAWA remains actively committed to these agreements and is dedicated to achieving air quality improvements in the South Coast basin.

Sincerely,



Robert Freeman
Airport Environmental Manager II
Los Angeles World Airports

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Attachments:

- LAX MOU 2021 Summary and Data Report_April 2024.pdf
- 1. Revised 2021 LAX GSE Emission Calcs_r20231023_AQMD.xlsm
- 1. SCAQMD MOU Report 2021 Measure 1_AQMD_20240416.xlsx
- 2. LAX Clean Fleet Alt Fuel Incentive 2021_AQMD.xlsx
- 2. SCAQMD MOU Report 2021 Measure 2_AQMD.xlsx
- 3. LAX Clean Fleet Bus 2021_AQMD (2021 Total Operating Fleet)_r20231025.xlsm
- 3. SCAQMD MOU Report 2021 Measure 3_AQMD_11162022 (submitted).xlsx

Cc: Samantha Bricker
Lauren Paladino
Eric Praske (SCAQMD)
Ian MacMillan (SCAQMD)
Xingqiu Zhang (SCAQMD)
John Pehrson (CDM)
Jeremy Gilbride (CDM)