

Ground Support Equipment Emissions Policy

Goal

Reduce the airport-wide fleet average composite Ground Support Equipment (GSE)¹ emission factors to equal to, or less than, 1.8 grams per horsepower-hour of hydrocarbons plus nitrogen oxides (g/hp-h of HC plus NO_x) by December 31, 2022; and 1.0 g/hp-h of HC plus NO_x airport-wide emission factor by December 31, 2030 (the 2023 and 2031 LAX GSE Emissions Goals).

Establish an approach for reducing GSE emissions at LAX that acknowledges: (a) LAWA's obligations and business operational and planning needs to reduce GSE emissions at LAX; (b) the California Air Resources Board (CARB) emissions reduction programs and requirements; and (c) the Memorandum of Understanding between LAWA and the South Coast Air Quality Management District (SCAQMD) to quantify emission reduction from this Policy.

Establish a process to (a) obtain emissions information from the Airlines and other GSE Operators (collectively, The GSE Operators) for their GSE fleets at LAX on an annual basis and (b) utilize existing CARB reporting requirements to assist LAWA with measuring and tracking GSE emission performance at LAX.

Determine, in consultation with GSE Operators, appropriate means to monitor progress towards meeting the 2023 and 2031 LAX GSE Emissions Goals.

Encourage and support GSE Operators to reduce GSE emissions to below the 2023 and 2031 LAX GSE Emissions Goals through the increased use of extremely low emission technology.

Recognize that additional requirements for further reductions in airport-related emissions will likely arise in the future in conjunction with regional air quality planning (i.e., updating of the South Coast Air Quality Management Plan), and the ability to effectively respond to such future requirements, once defined, will be best realized through this type of successful collaboration between LAWA and the GSE Operators.

Policy

Each GSE Operator will be required to ensure that the average composite emissions factors of its LAX GSE Fleet² meets the 2023 and 2031 LAX GSE Emissions Goals, i.e., is equal to or less than 1.8 g/hp-h of HC plus NO_x by December 31, 2022 and 1.0 g/hp-h of HC plus NO_x by December 31, 2030 (the "2023 and 2031 LAX GSE Fleet

¹ Ground Support Equipment or "GSE" is any vehicle or equipment used to support aircraft operations that is subject to, or included in compliance plans to meet, the requirements of the California Air Resources Board (CARB) In-Use Off-Road Diesel (ORD) Vehicle Regulation Program, CARB Off-Road Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation Program, or CARB Portable Equipment Registration Program and associated Portable Diesel Engine Airborne Toxic Control Measure. At LAX, LAWA, airlines and other entities own and operate GSE to support arriving, departing, and parked aircraft.

² A GSE Operator's "LAX GSE Fleet" is comprised solely of GSE operated at LAX. Emissions performance of GSE operating at LAX cannot be averaged with emissions performance of GSE operating at other airports to demonstrate compliance with the 2023 and 2031 LAX GSE Fleet Operator Emissions Target.

Operator Emissions Targets”). Upon achieving the 2023 and 2031 LAX GSE Fleet Operator Emissions Targets, each GSE Operator shall be required to ensure its fleet average does not thereafter exceed the targets.

Reporting

To monitor and support ongoing progress towards meeting the 2023 and 2031 LAX GSE Fleet Operator Emissions Targets, each GSE Operator will provide to LAWA the following reports.

Annual Reports

Each GSE Operator will be required to provide to LAWA an annual accounting of the composite NO_x + HC emissions factors from its LAX GSE Fleet. Each GSE Operator will also provide fleet inventory data for its LAX GSE Fleet that is consistent with data provided to CARB and in a form or forms as requested by LAWA. The basic nature and overall format of the data submittal will be, to the extent practical, similar to and/or compatible with the recordkeeping and reporting requirements for compliance with CARB statewide regulations.

Interim Reports

No later than March 31, 2021 and 2028, each GSE Operator will provide LAWA with an interim assessment report providing the average composite emissions factor of its LAX GSE Fleet as of March 1, 2021 and March 1, 2028, respectively.

Action Plans

LAX GSE Operators that do not meet interim targets (below) are required to provide compliance plans to LAWA identifying how they plan to meet the 2023 and 2031 LAX GSE Fleet Operator Emissions Targets.

- If the average composite emissions factor of a GSE Operator’s LAX GSE Fleet exceeds 2.65 g/hp-hr of HC plus NO_x as of March 1, 2021, that GSE Operator shall provide to LAWA, by July 1, 2021, an action plan for reducing the average composite emissions factor of its LAX GSE Fleet to be equal to or less than 1.8 g/hp-h of HC plus NO_x by December 31, 2022.
- If the average composite emissions factor of a GSE Operator’s LAX GSE Fleet exceeds 1.5 g/hp-hr as of March 1, 2028, that GSE Operator shall provide to LAWA, by July 1, 2028, an action plan for reducing the average composite emissions factor of its LAX GSE Fleet to be equal to or less than 1.0 g/hp-h of HC plus NO_x by December 31, 2030.

Approach

LAWA, in consultation with The GSE Operators, shall develop an agreed upon reporting approach and related rules and regulations to carry out this policy.

The GSE Operators are to maintain In-Use Off-Road Diesel (ORD), Large Spark-Ignition (LSI), and Portable Engine Airborne Toxic Control Measure (ATCM) data as required by CARB regulations.

- Beginning January 1, 2023, on or before every January 22nd annually, each GSE Operator will be required to submit documentation to LAWA demonstrating that its LAX GSE Fleet is in compliance with the 1.8 g/hp-h of HC plus NOx emission target.
- Beginning January 1, 2031, on or before every January 22nd annually, each GSE Operator will be required to submit documentation to LAWA demonstrating that its LAX GSE Fleet is in compliance with the 1.0 g/hp-h of HC plus NOx emission target.

This annual documentation will include:

- A written statement attesting to the accuracy of the information provided, similar to the Responsible Official Affirmation of Reporting (ROAR) form used by CARB;
- A calculation of the average composite emission factor demonstrating that the GSE Operator's LAX GSE Fleet meets the 2023 and 2031 LAX GSE Fleet Operator Emissions Targets (i.e., that the average composite emissions factor of its LAX GSE Fleet is equal to or less than 1.8 g/hp-h of HC plus NOx by December 31, 2022; and 1.0 g/hp-h of HC plus NOx by December 31, 2030;
- Ann inventory of the GSE Operator's LAX GSE fleet.

"Low-Use" GSE may be excluded from GSE fleet average emission calculation. The criteria defining Low-Use GSE shall be based on the applicable program (i.e. ORD, LSI, ATCM).

The CARB ORD compliance requirements set forth specific emissions targets and allow, in the event that an annual emissions target is not achieved by a fleet owner, alternative compliance strategies such as application of Best Available Control Technology (BACT) and vehicle "turnover" (i.e., vehicle retirement, conversion to "low use", repowering, or rebuilding engines to comply with more stringent emission limits). LAWA will adopt CARB alternative compliance strategies when evaluating a GSE Operator's status and efforts towards achieving the 2023 or 2031 LAX GSE Fleet Operator Emissions Targets.

If a GSE Operator's LAX GSE Fleet does not meet the 2023 or 2031 LAX GSE Fleet Operator Emissions Targets, and the failure continues for more than 60 days after the GSE Operator receives notice of the failure from LAWA, the GSE Operator shall be deemed in breach of this Ground Support Emissions Equipment Policy. In such event, LAWA may take any and all measures and remedies available to it through its leases, licenses, permits, rules and regulations including, but not limited to, seeking damages in a reasonable documented amount necessary to offset the GSE operator's failure to reduce emissions, and injunctive relief requiring the non-compliant GSE

operator to comply with the Policy. Use of any one potential measure or remedy will not preclude use of any other.

Infrastructure and Equipment

To encourage and support the conversion to and/or use of alternative fuel low emissions GSE technology at LAX, LAWA, in consultation with GSE Operators, will analyze the extent to which additional infrastructure to support the use of alternative fuel low-emission GSE technology is needed. Such alternative fuel low emissions technology could include, but is not limited to, electric power utilizing rechargeable batteries, electric power utilizing hydrogen fuel cells, LNG/CNG, and biodiesel. Where appropriate and in consultation with GSE Operators, LAWA may make available such additional infrastructure.³

In the event that LAWA installs electrical infrastructure and/or battery charging stations or acquires electrical infrastructure and/or battery charging stations installed by a GSE Operator the following guidelines will apply:

- Infrastructure and battery charging station capital investment cost incurred by LAWA will be recovered through the airline rates and fees set by the Board of Airport Commissioner's (BOAC).
- In the event improvement to electrical infrastructure and battery charging stations to support electric GSE is made by others, such as Airlines, Airline consortium(s), and such infrastructure and/or battery charging stations are subsequently acquired by LAWA, the acquisition costs will be recovered through airline rates and fees set by BOAC.
- LAWA will be responsible for maintenance of electrical infrastructure.
- GSE operators using the battery charging stations will be responsible for the associated utility consumption costs and such costs will be recovered through the airline rates and fees set by BOAC.
- LAWA will license operation, maintenance, and use of additional battery charging stations to Airlines, Airlines consortium(s), and other GSE Operators.
- Maintenance of battery charging stations will be the responsibility of the licensee.
- GSE Operators and Airline consortium(s) licensed to operate and maintain battery charging stations will establish guidelines, subject to LAWA approval, for operating and maintaining battery charging stations in compliance with all manufacturers' warranty, operational and preventive maintenance requirements. All

³ LAWA acknowledges that some of The GSE Operators have already installed electricity infrastructure and charging stations on their own and that some GSE Operators may desire to use their own electricity infrastructure and charging stations. This Policy is not intended to mandate GSE Operators to use LAWA provided electricity infrastructure and charging stations or the use of particular technologies, or to require LAWA to provide such facilities.

operational and maintenance work assigned and accomplished will be documented and all documentation will be made available to LAWA upon request.

- The Airlines and Airline consortium(s), subject to LAWA approval, will manage the sharing of battery charging equipment among Airlines and other GSE Operators.
- GSE Operators and Airline consortium(s) will provide their own charging plugs/adapters, as necessary.

Incentives for Further Emissions Reductions

LAWA's ultimate goal is to continuously reduce GSE emissions at LAX. To that end, LAWA supports and encourages the use of zero emission technology, which can serve a key role in achieving reduced GSE emissions at LAX.

To encourage The GSE Operators to reduce emissions to below the GSE Emissions Reduction Program goals, LAWA adopted the LAX Electric Ground Support Equipment Incentive Program in 2019 with \$500,000 from LAWA's own funds to accelerate the use of zero-emission GSE at LAX. LAWA may continue this program if additional funding from third party sources, such as CARB, the SCAQMD, or other state, local or federal agencies are identified.