

Frequently Asked Questions Off-Road Large Spark-Ignition Engine Fleet Requirements Regulation

AIRPORT GROUND SUPPORT EQUIPMENT

May 5, 2017

1. The Large Spark-Ignition Engine Fleet Requirements Regulation (LSI Fleet Regulation) requires the fleet average emission level (FAEL) calculation for forklift and non-forklift equipment be performed separately. Are forklifts used as airport ground support equipment (GSE) included in the calculation for the non-forklift fleet or the forklift fleet?

The Airport GSE definition references 23 categories of equipment contained in the South Coast GSE Memorandum of Understanding (table below). Forklifts are one of those categories and must comply with the forklift FAEL¹. The remaining categories of GSE must comply with the non-forklift FAEL.

Categories of GSE as defined in the LSI Regulation		
Air Conditioner	Cart	Lavatory Cart
Air Starter	Catering Truck	Lavatory Truck
Aircraft Tractor	De-icer	Lift
Baggage Tractor	Forklift	Passenger Stand
Belt Loader	Fuel Truck	Service Truck
Bobtail	Generator	Sweeper
Cargo Loader	Ground Power Unit	Water Truck
Cargo Tractor	Hydrant Truck	

2. What is on-road equivalent GSE?

On-road equivalent GSE is equipment that have been designed for on-road use, but not licensed for on-road use. These vehicles may also have been modified for airport use. For the purposes of calculating determining the 1/1/2013 fleet average standard for a non-forklift fleet, each piece of On-Road Equivalent GSE shall be considered to have a combined NO_x+HC emission level of 0.7 g/bho-hr (0.9 g/kW-hr).

¹ Appendix 2, SCAQMD GSE MOU (2002)
<http://www.arb.ca.gov/msprog/offroad/gse/appendix-2-final.pdf>

While this document is intended to assist fleets with their compliance efforts, it does not alter or modify the terms of any CARB regulation, is not a substitute for reading the regulation, nor does it constitute legal advice. It is the sole responsibility of fleets to ensure compliance with the Large Spark-Ignition Engine Fleet Requirements Regulation.

3. Are my GSE equipment designated and licensed for on-road use included in the FAEL calculations?

No. The LSI Regulation's definition for airport GSE does not include those categories of GSE equipment that are designated and licensed for on-road use. This equipment is not subject to the requirements of the LSI Regulation.

4. Are there limits on the inclusion of electric equipment in FAEL standards calculations?

Yes, there are three:

1. If the equipment is powered by a motor rated at less than 19 kW, it must perform, with similar efficiency, the work done by an LSI engine-powered piece of GSE in order to be included in the FAEL calculation.
2. If the electric vehicle is being used in the FAEL calculation for the In-Use Off-Road Diesel-Fueled Fleets Regulation,² then it typically cannot be used in the LSI FAEL calculation (and vice versa). The exception is electric GSE that was in operation prior to January 1, 2007. It may count toward both regulatory requirements.
3. Golf carts generally are not subject to the LSI Fleet Regulation but are instead subject to the Evaporative Emissions Control Requirements for Off-Highway Recreational Vehicle.³ However, an exception is that an electric golf cart that performs, with similar efficiency, the same function such as a GSE cart may be included in the GSE FAEL calculation.

² <https://arb.ca.gov/msprog/ordiesel/ordiesel.htm>

³ <https://www.arb.ca.gov/msprog/offroad/orrec/orrec.htm>

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