FACTS ABOUT

Requirements for Off-Road Large Spark-Ignition (LSI) Engine-Powered Forklifts in Agricultural Operations

On May 25, 2006, the California Air Resources Board (ARB) adopted new regulations to reduce emissions from existing LSI fleets. This fact sheet discusses the provisions for agricultural fleets. For information regarding the fleet average provisions for other fleets, please see: Facts About Fleet Requirements for Off-Road Large Spark-Ignition (LSI) Engine-Powered Forklifts and other Industrial Equipment. For general information regarding this regulation, please see: Overview of the New Emission Standards, Test Procedures, and Fleet Requirements for Large Spark-Ignition (LSI) Engine Forklifts and Other Industrial Equipment.

Who must comply with these regulations?

Any person or business engaged in "agricultural crop preparation services" is subject to the regulation. "Agricultural crop preparation services" are defined as "packinghouses, cotton gins, nut hullers and processors, dehydrators, feed and grain mills, and other related activities that fall within the United States Census Bureau's North American Industry Classification System (NAICS) definition for Industry 115114 – "Postharvest Crop Activities," as published in NAICS – United States, 2002 (http://www.census.gov/epcd/naics02/def/ND115114.HTM).

What types of vehicles are subject to the regulation?

Operators of agricultural crop preparation services fleets only need to address those uncontrolled 1990 and newer model year off-road LSI engine-powered forklifts of 25 horsepower (19 kilowatt) or greater and operating on gasoline, propane, or compressed natural gas, for which retrofit emission control systems have been verified.

These uncontrolled forklifts (without catalytic converters, oxygen sensors and electronic fuel/air controllers) can emit 20 times more hydrocarbon plus oxides of nitrogen (HC+NOx) than new engines that are already certified to California's 2010 0.6 gram per brake horsepower-hour (g/bhp-hr) HC+NOx emission standard. Uncontrolled forklifts may be addressed through retrofit, repower with a complying engine, or replacement with a new or used controlled LSI or electric forklift.

What does the regulation require of operators of agricultural crop preparation services forklifts?

Operators must address their owned uncontrolled 1990 and newer forklifts as follows:

- By January 1, 2009, identify that portion of their owned 1990 and newer LSI forklift fleet for which retrofit emission control systems have been verified and control 20 percent of that portion through retrofit or repower to a 3.0 g/bhp-hr HC+NOx verification level or better.
- By January 1, 2012, retrofit or repower the remainder of their owned 1990 and newer LSI forklift fleet for which retrofit emission control systems have been verified to a 3.0 g/bhp-hr HC+NOx verification level or better.

Operators will not have to address their leased and rental forklifts provided:

- Their leased forklifts meet a 3.0 g/bhp-hr standard or better. Forklifts under a lease agreement that was initiated prior to May 25, 2006 may also be excluded from the 3.0 g/bhp-hr standard for the life of the lease, or until January 1, 2010, whichever is earlier, and
- Their rental forklifts rented on or after January 1, 2009, meet a 3.0 g/bhp-hr standard or better. Forklifts with an uncontrolled 2003 or 2004 model year engine may be excluded until
- January 1, 2010.

Are there alternative compliance options?

Yes. An operator of an agricultural crop preparation services fleet may be exempted from the retrofit or repower requirements discussed above provided that the forklift fleet complies with a 3.0 g/bhp-hr fleet average emission level. Facilities with large numbers of electric forklifts may find this an easier compliance option.

Are there special provisions for low-use vehicles?

LSI forklifts used 250 hours per year or less may be excluded from the retrofit or repower requirement provided that the forklift is equipped with an operational hours of use meter, and the operator maintains hours of use records for the piece of equipment at the facility.

Are there any exemptions?

- The LSI regulation provides both fleet and individual equipment exemptions:
- In-field agricultural forklifts are exempt from the LSI regulation.
- Fleets with one to three forklifts are exempt from the LSI regulation.
- Equipment that is leased or rented for a period of no more than 30 aggregated calendar days per year are exempt from the LSI regulation.
- Forklifts with a replacement cost exceeding the replacement cost of a "typical" forklift by 50 percent or more or a retrofit cost exceeding the "typical" retrofit cost of a forklift by 100 percent or more are exempt from the LSI regulation provided that they are low use vehicles as described above and the Executive Officer of the ARB approves the listing of the forklift as a piece of specialty equipment.

Will incentive funding be available?

Yes. California has the largest clean air incentive program in the nation, the Carl Moyer Program, with up to $140 million available each year primarily through the local air districts. The Carl Moyer Program provides grant funding to offset the incremental capital cost of cleaner technologies, provided that the installation or replacement yields emission benefits that go beyond the requirements of the regulation or occur at least three years early. Agricultural crop preparation services fleets may be able to access Carl Moyer Program funds in advance of their 2012 compliance date. To find out more about Carl Moyer Program funding, go to http://www.arb.ca.gov/msprog/moyer/moyer.htm

Where can I find more information about the regulation?

The LSI staff report and regulatory text can be accessed from http://www.arb.ca.gov/regact/lore2006/lore2006.htm

Further information, including other fact sheets, presentations, frequently asked questions, and a list of verified retrofit emission control systems, is available on the LSI regulation website at http://www.arb.ca.gov/msprog/offroad/orspark/orspark.htm

For additional general information

For general information, please contact ARB's DOORS hotline toll-free at (877) 593-6677. You may also obtain this document in an alternative format by contacting the ARB at (916) 322-4505 (voice); 916) 324-9531 (TDD, Sacramento area only); or (800) 700-8326 (TDD, Outside Sacramento).
TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service.