



# Protecting The Environment

## New Emissions Standards Apply To Both On- And Off-Road Vehicles

(NAPSA)—Here's news that may help everyone breathe easier: In regulating emissions to promote clean air, the Environmental Protection Agency (EPA) has put limits on the level of total engine exhaust emissions from industrial equipment such as lift trucks.

As reported by the California Air Resources Board (CARB), recent legislation has focused on achieving the maximum degree of emission reductions from all on- and off-road mobile sources in order to attain the state ambient air-quality standards. Off-road mobile sources include:

- Small spark-ignition off-road engines and equipment of less than 25 horsepower—Lawn and garden equipment and small industrial equipment;
  - Off-road recreational vehicles—Motorcycles and all-terrain vehicles;
  - Off-road compression ignition (diesel) engines and equipment;
  - Off-road large spark-ignition (gasoline and LPG) engines and equipment 25 horsepower and greater—Industrial equipment, lift trucks and portable generators;
  - Airport ground support equipment;
  - Cargo handling equipment (diesel) at ports and intermodal rail yards; and
  - Locomotives, commercial marine vessels, commercial harbor craft and recreational marine (personal watercraft, ski boats, inboards and outboards).
- So what does this mean for consumers? Now, the equipment seen



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in operation at numerous work sites or enjoyed by many for recreational purposes will need to meet stringent emissions standards similar to those for commercial automotive vehicles.

### Current Technology

According to CARB, many gasoline and LPG engines in this category are similar to, or derived from, early 1980s automobile engines. In response to 1994 State Implementation Plan (SIP) control measure M11, emission control regulations for new engines were to be phased in beginning in 2001. SIP control measure M12 expects the U.S. EPA to adopt similar standards for preempted equipment.

The strategy proposes 19 defined measures that CARB staff would develop, covering on-road vehicles, off-road equipment, marine vessels/ports, fuels and refueling, and consumer products. Two of the mobile source mea-

asures address emissions from off-road equipment with large spark-ignition (LSI) engines.

Today, zero-emission products are considered a "must have" for the industrial equipment market. Over the last 30 to 40 years, the industrial equipment market has used batteries to provide for zero-emission trucks.

### Improving Emissions

Numerous companies are researching ways to produce more environmentally friendly vehicles. These include technological advancements for internal combustion (IC) engines that meet standards set by the EPA and state regulatory commissions; electric models with greater performance power; and fuel cells, also reported by CARB.

Toyota's spark-ignition IC lift trucks are more powerful, more fuel efficient and produce less harmful emissions. Most of these improvements can be attributed to the use of a new electronic fuel-control system. These new fuel systems control the engine's air-to-fuel ratio more precisely than the old mechanical systems.

Toyota Material Handling is leading the environmental charge with the recently introduced 8-series IC lift trucks, which produce 70 percent less smog-forming emissions than the current federal EPA standards, as well as higher-performing electric vehicles and advances in fuel cell technology (currently in prototype format). To learn more, visit [www.toyotaforklift.com](http://www.toyotaforklift.com).