

## Small Off-Road Engine Regulations Applicability to Off-Road Equipment



### What are the small off-road engine regulations?

Small off-road engines (SORE) are spark-ignition engines with rated power at or below 19 kilowatts (25 horsepower). The SORE regulations require new engines to be certified and labeled to meet emission standards and other requirements.

### What types of equipment use small off-road engines?

Typical equipment types that use SORE include lawn and garden equipment, portable generators, and pressure washers.

### Which engines are not subject to the SORE regulations?

Engines that use diesel fuel and engines that are used in stationary equipment, including standby generators, are not subject to the SORE regulations. Federal law preempts states from regulating new engines which are used in construction equipment or vehicles or used in farm equipment or vehicles, and which are smaller than 175 horsepower. A list of preempt equipment is available at <https://ww2.arb.ca.gov/sore-list-determine-preempt-road-applications>.

### What are the requirements for wintertime engines?

Engines used exclusively to power products which are used exclusively in wintertime, such as snowthrowers and ice augers, at the option of the engine manufacturer, need not certify to nor comply with certain emission standards for SORE.

### Are any large spark-ignition engines subject to the SORE regulations?

Most large spark-ignition (LSI) engines, which are rated over 19 kilowatts, are not subject to the SORE regulations. However, LSI engines with engine displacement less than or equal to one liter must use the SORE test procedures and meet the evaporative emission requirements in the SORE regulations.

### What about my existing equipment?

CARB does not regulate the use of existing CARB-compliant SORE equipment.

### What about equipment for emergency response?

Pursuant to title 13, California Code of Regulations, section 2403(f), fire and police departments, and other entities that specialize in emergency response may purchase emergency equipment powered by a non-California certified engine only when such equipment with a California-certified engine is not available. A request to purchase emergency equipment powered by a non-California certified engine must be submitted for approval to the Executive Officer.

## Examples of equipment with engines that are and are not subject to CARB's current SORE regulations

SORE used in the following equipment are subject to CARB's current SORE regulations:

- Chainsaws < 45 cc
- Edgers
- Hedge trimmers
- Lawn mowers
- Leaf blowers
- Log splitters
- Portable generators
- Pressure washers
- Riding mowers
- String trimmers

SORE used in the following equipment are not subject to CARB's current SORE regulations:

- Air compressors
- Blade-capable brush cutters/clearing saws  $\geq 40$  cc
- Chainsaws  $\geq 45$  cc
- Chippers
- Light towers
- Pumps  $\geq 40$  cc
- Saws: concrete, masonry, cutoff
- Shredders/grinders
- Stationary generators
- Stump grinders
- Welders

Other equipment not subject to SORE regulations:

- Equipment with engines that use diesel fuel
  - Diesel generators
  - Diesel pressure washers
  - Diesel pumps
  - Diesel riding mowers
- Stationary equipment
- Equipment with LSI engines > 1 liter