

## FACTS ABOUT

**Low Rolling Resistance Tire Information***Tractor-Trailer Greenhouse Gas Regulation*

The California Air Resources Board (ARB) approved the Tractor-Trailer Greenhouse Gas regulation to significantly reduce greenhouse gas emissions produced by certain heavy-duty tractor-trailers. The regulation requires the use of United States Environmental Protection Agency (U.S. EPA) SmartWay verified aerodynamic technologies and low rolling resistance (LRR) tires on vehicles operating on California highways.

**What are low rolling resistance tires?**

Low rolling resistance tires are defined in this regulation as tires designed to improve the fuel efficiency of tractor-trailers by minimizing their rolling resistance. As tires roll under the vehicle's weight, they deflect and dissipate energy into heat. The rolling resistance of a tire is the energy lost per unit distance traveled as the tire rolls under load. A tire with less rolling resistance is more fuel efficient than one with greater rolling resistance. The goal of requiring SmartWay verified tires on tractors and trailers is to reduce greenhouse gas emissions by achieving a fuel consumption savings of at least three percent from the tractor-trailer combination.

**Who is affected by the regulation?**

This regulation applies to all 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers operating in California, and the heavy-duty tractors that pull them.

**What are the tire requirements of this regulation?**

This regulation requires affected tractors and trailers to use U.S. EPA SmartWay verified low rolling resistance tires when traveling in California. To qualify tire models as SmartWay verified, manufacturers submit test data to U.S. EPA to show that they meet the performance requirements of the SmartWay program. Information about which tires are SmartWay verified can be found on the U.S. EPA SmartWay Transport Partnership website at: <http://www.epa.gov/smartway/transport/what-smartway/verified-technologies.htm>. If a tire model is not listed on the SmartWay list of verified tires, then the tire can not be used to comply with this regulation. The SmartWay program updates the list periodically.

SmartWay verified tire models are available in various sizes for all wheel positions. Most major truck tire manufacturers offer SmartWay verified low rolling resistance tires.

The following table identifies which affected tractors and trailers must comply with the tire requirements by what deadlines, and which vehicles may be exempted:

	<b>LRR Tires Required</b>	<b>Compliance Deadline</b>	<b>Exempt from LRR Tire Requirement</b>
2011 MY and newer tractors (sleeper & day cab)	Yes	1/1/2010	Registered short-haul tractor
2011 MY and newer trailers	Yes	1/1/2010	Registered storage trailer, or any trailer pulled by exempt short-haul tractor
2010 or older MY tractors	Yes	1/1/2013	Registered short-haul tractor
2010 or older MY trailers	Yes	1/1/2017	Registered storage trailer, or any trailer pulled by exempt short-haul tractor

LRR – low rolling resistance

MY – model year

### **Are there any other exemptions from the low rolling resistance tire requirements?**

The regulation allows for a partial exemption from using SmartWay verified low rolling resistance tires for 2011 and newer model year tractors that must use open shoulder drive tires. This exemption allows the use of two or more non-SmartWay verified open shoulder drive tires (for the drive position only) until January 1, 2013. Tractors equipped with only one open shoulder drive tire or tractors equipped with non-open shoulder tires that are not SmartWay verified tires would not be in compliance with the regulation.

Other short term exemptions from the SmartWay tire requirements are also available for limited purposes such as relocation of a storage trailer, transfer of ownership of a trailer, and moving a non-compliant tractor. These short term exemptions (typically for a maximum of three days) require applying to ARB for a temporary "pass."

### **Does this regulation require that I use wide base single low rolling resistance tires?**

Either new generation wide base single tires or conventional dual tires can be used, as long as the tires are SmartWay verified.

### **Will I be able to use retreaded tires and still comply with the regulation?**

Retreaded tires can be used to comply with this regulation. The SmartWay program is working to establish specifications for SmartWay verified retreaded tires. Once those specifications are established, fleets will be required to use those tires to comply with the regulation (or use new SmartWay verified tires). Until SmartWay verified retreads are available, fleets must use either a new SmartWay verified tire, or a retread on a casing from a SmartWay verified tire. As shown in the table above, fleets will have until 2017 before their 2010 and older model year trailers will need to meet the tire requirements. Until then, fleets may continue to use non-SmartWay retreads.

### **Will it cost me more to replace my current tires with low rolling resistance tires than conventional tires?**

The price differential to upgrade to SmartWay verified tires is minimal. In addition, SmartWay verified tires offer fuel savings compared to other tires. The average cost to replace radial tires with low rolling resistance tires ranges between \$0 to \$50 per tire, a difference that will easily be recouped through the fuel savings earned from using the more fuel efficient low rolling resistance tires.

### **Where can I find more information about the regulation?**

Fact sheets, compliance tools, and regulatory documents are available at [www.arb.ca.gov/cc/hdghg/hdghg.htm](http://www.arb.ca.gov/cc/hdghg/hdghg.htm) or by calling ARB's diesel hotline at (866) 6DIESEL (634-3735). You may also obtain this document in an alternative format or language by contacting 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.