

Overview of 2015 Updates to the EPA-designated SmartWay Trailer

EPA's SmartWay Transport Program is a market-driven partnership to help businesses move goods in the cleanest, most efficient way possible. By providing a consistent set of tools and information needed to make informed transportation choices, SmartWay enables companies across the country to benchmark performance data in ways that protect our environment, encourage economic vitality, and enhance our nation's energy security. EPA's SmartWay Technology program helps carrier fleets make informed business decisions to save fuel and improve their supply chain efficiency.

In 2014, EPA's SmartWay Technology Program released in interim form updates to its trailer designation and trailer aerodynamic equipment verification programs. These updates were finalized in 2015 to allow trucking fleets to better identify trailer equipment with demonstrated fuel savings and to offer manufacturers more test flexibility.

The 2015 updates include:

- Incorporating multiple aerodynamic performance evaluation methods;
- Expanding to include large refrigerated trailers in addition to dry vans;
- Using performance-based categories for aerodynamic devices; and,
- Adding a new SmartWay *Elite* Trailer category.

Overall, EPA's SmartWay trailer program uses robust testing protocols to verify the fuel savings of trailer aerodynamic devices (e.g., trailer skirts, tails, noses, under-trailer devices) and low-rolling resistance tires to be used on 53-foot trailers.

EPA has expanded its aerodynamic testing-verification pathways to include an enhanced track test, wind tunnel testing, coastdown testing, and computational fluid dynamics (CFD). If trailer aerodynamic devices demonstrate fuel savings in SmartWay testing, they are identified as SmartWay-verified and are listed, along with SmartWay-verified low-rolling resistance tires, on the SmartWay website's technology verification page (www.epa.gov/smartway/forpartners/technology.htm).

EPA added 53-foot refrigerated trailers along with dry vans to its types of designated trailers. EPA's designation of 53-foot box dry van and refrigerated trailers gives fleet managers additional confidence that fuel saving technologies will perform for all of their 53-foot box trailers.

EPA has replaced device-based categories with performance thresholds of 1%, 4%, 5% and 9% or more fuel savings over traditional trailers. Using the SmartWay aerodynamic device verification web page, fleet managers can select individually-verified devices from a performance category to total the fuel savings threshold for their trailer to qualify as SmartWay-designated. (www.epa.gov/smartway/forpartners/technology.htm)

There are two designation-levels for trailers in the SmartWay program:

- An EPA-designated "SmartWay" trailer is a 53-foot box trailer (dry van or refrigerated) used in long-haul operation, equipped with SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices. A SmartWay trailer can save a total of 6% or more fuel over traditional trailers. At least 5% of the fuel savings result from reducing wind drag with one or more EPA-verified aerodynamic devices. An additional 1% or greater fuel savings come from reducing rolling resistance with EPA-verified tires. A typical Class 8 tractor-trailer combination truck in long-haul operation using a SmartWay trailer could save about 1,000 gallons of diesel annually.
- An EPA-designated "SmartWay *Elite*" trailer is a 53-foot box trailer (dry van or refrigerated) used in long-haul operation, equipped with SmartWay-verified low-rolling resistance tires and a higher-level of SmartWay-verified aerodynamic devices. A SmartWay *Elite* trailer can save a total of 10% or more fuel over traditional trailers. At least 9% of the fuel savings result from reducing wind drag with a combination of 2 or more EPA-verified aerodynamic devices. An additional 1% or greater fuel savings result from reducing rolling resistance with EPA-verified tires. A typical Class 8 tractor-trailer combination truck in long-haul operation using a SmartWay *Elite* trailer could save about 1,700 gallons of diesel annually.

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Overview of 2015 Updates to the EPA-designated SmartWay Trailer *Continued*

SmartWay and SmartWay *Elite* trailers are used by trucking fleets to move freight in the most fuel-efficient way possible and reduce greenhouse gas emissions.

Summary of EPA-designated SmartWay Trailer Configurations

	SmartWay Trailers	SmartWay <i>Elite</i> Trailers
<i>Trailer Types</i>	53-foot box trailers (either dry vans or refrigerated trailers) used for long haul operations	53-foot box trailers (either dry vans or refrigerated trailers) used for long haul operations
<i>Aerodynamic Devices</i>	One or more SmartWay-verified aerodynamic devices totaling at least 5% fuel savings	Combination of two or more SmartWay-verified aerodynamic devices totaling at least 9% fuel savings
<i>Low Rolling-resistance Tires</i>	SmartWay-verified low-rolling resistance tires totaling at least 1% fuel savings	SmartWay-verified low-rolling resistance tires totaling at least 1% fuel savings
Total Fuel Savings	6% or greater	10% or greater
<i>Per Trailer Annual Fuel Savings</i>	Approximately 1,000 gallons of diesel per year	Approximately 1,700 gallons of diesel per year

For more information: www.epa.gov/smartway/forpartners/technology.htm or Tech_Center@epa.gov

