UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

OFFICE OF
AIR AND RADIATION

JUN 11 2012

Dear Manufacturer:

Today, the U.S. Environmental Protection Agency (EPA) is announcing the establishment of a verification program for tire retread technologies for use on line-haul class-8 trucks. Verified low rolling resistance retread products, when used as described here, will provide reductions in fuel consumption of at least 3% as compared to the most popular retread products now in use. These reductions will mean real fuel savings for drivers who use verified products. Effective immediately, manufacturers may test and demonstrate performance for verification in accordance with the attached Interim Performance Requirements for Retread Products.

A copy of our interim test protocol and target values is enclosed. To obtain the minimum reductions in fuel consumption, verified tires or retreads must be used on the drive and trailer positions, with EPA verified steer tires, and all tires must be properly inflated according to the manufacturer's specifications.

EPA will begin accepting applications for verification of retread products immediately. Manufacturers interested in applying for verification should contact EPA by e-mail at tech_center@epa.gov, and we will send additional instructions.

Your organization can play an important role in ensuring the supply and use of innovative technologies, like low rolling resistance retreaded tires, that provide both emission reductions and fuel savings. We appreciate your interest and look forward to your partnership as we work to make the freight industry more efficient, while reducing emissions of harmful pollutants.

Sincerely,

Karl Simon, Director
Transportation and Climate Division
Office of Transportation and Air Quality

Enclosure

EPA Verified Low Rolling Resistance Tires
Interim Performance Requirements for Retread Products
Effective June 11, 2012

Manufacturers of retread products ("retread" or "product") may apply for EPA verification of low rolling resistance performance as described below. This verification test process and performance requirements are applicable to precure or mold cure retread products to be used for drive or trailer tires in the class-8 line-haul tractor-trailer applications. These test methods and performance requirements are only for EPA verification of rolling resistance performance, and manufacturers must comply with all other applicable federal, state and local requirements.

Tire casing for testing ("test casing"): The test casing is made from a new-unused Yokahama Super Steel RY-617, size: 295/75R22.5, made in the USA.
The test casing is used with all treads for conventional width tires (dual tire axle configurations). This tire casing for testing was identified by an industry panel as being most suitable for this purpose.

Alternate tire casing for testing ("alternate casing"): For retreads used on single-wide tires, manufacturers may request to use an alternate casing made from a current EPA verified single-wide new tire. If a product has the same tread pattern (except fewer central tread rows and or lugs) and rubber compound as a product verified using the Yokohama RY-617 reference casing, the results of the test on the Yokohama reference casing can be applied to the tread model sized for single-wide casings. The manufacturer must declare to EPA that the tread pattern and rubber compounds are identical in all sizes of the particular model being verified. The target to which the test result is compared is determined by the source of the casing used for the test (see table below).

Test Protocol:

1. Three new unused tires are buffed to a thickness above the belt typical for the retread process being tested. The allowable range of buff radius is between 24 and 26 inches.
2. The use of a calendared or extruded cushion is acceptable, and the use of an outside/inside curing envelope is acceptable. Construction must be in accordance with normal production processes.
3. The cure conditions for the retread process are set by the manufacturer of the retread product. Tread curing for verification testing must be conducted at a worst case (temperature and time) condition as allowed by the manufacturer.
4. Each retread tire is tested using the ISO 28580 method, on an 8.25" test rim, a 2 meter drum (or if another drum diameter is used, the result is corrected to 2 meters diameter as described in section 9.3 ("Drum Diameter correction") of the ISO28580 test method). The load used is 85% of the maximum load capacity of the tire as determined by the Tire and Rim Association or European Tire Rim Technical Organization standards and a capped inflation pressure corresponding to the maximum load capacity as marked on the sidewall for single load application. The rolling resistance coefficient (Crr), in kg-f/mt, is calculated as follows: Crr = (Fr/Load) x 1,000
5. When conducting tests for verification, all results must be reported and a minimum sample of three retreaded tire tests is required with each request for verification. Test results are to be submitted on the EPA-provided results summary form, and each test documentation sheet from the test laboratory must be included in the application for verification.
6. The average of three test result is compared to the target value specified, and the average must be at or below the target values for the specified axle position.

Retread Tire Product Crr Target Values ISO 28580 (kg force/metric ton)		
	Drive	Trailer
Test Casing	7.2	6.0
Alternate Casing	6.5	5.4

Retread products that meet the trailer position target value may also qualify for verification in the drive position if the manufacturer certifies that the tread model is suitable for use in that application.

If a manufacturer markets a tread product under more than one brand name, the manufacturer may provide test data for one brand name, and request verification for other brands and model names with a declaration that the tested product and construction methods are in all material respects the same as the other models and in the manufacturer's good engineering judgement, all other brands and models will perform as the tested product.