



Caltrans Proposal Response

Subject: Four (4) Groups - 10 ft Wide Tridem Combination - 60,000 lbs
Proposal Date: July 19, 2007
Date: June 7, 2010
Reference: CTPAC WG12-040407-001, Addendum A

Industry Proposed Revision:

This proposal would revise TPPM 2006-04 to allow four groups of 60,000 lbs tridem bonus weights. The trucking industry requests that vehicles equipped with tridems that are 10 feet wide with four tires per axle would be authorized 60,000 lbs. per tridem group.

The Department's Response:

California highway system has approximately 50,000 total lane miles of which 33,000 are flexible pavement lane miles and 16,000 are rigid pavement lane miles, based on the Caltrans 2007 Pavement Condition Survey. When assessing the impact of pavement stresses caused by heavier loads, analyses are conducted for rigid and flexible pavements. Other factors that are also considered in the analyses are pavement thickness, suspension systems, axle group loading, loading per tire, tire pressure, and the position of tires.

The pavement impact to the states highway pavement infrastructure due to multiple 60,000 lbs tridems is of great concern to the Department. The impacts that this proposal would have on pavement service life, and strategies to mitigate them, have not been determined at this time. The Department suggests that industry further investigate the potential impacts of this proposal, and resubmit this proposal along with steps industry can do to mitigate the impacts.

The Department is not able to approve this request. Reviews of axle loadings showed that a 60,000 lbs tridem group causes 80 percent more damage to rigid pavements and 100 percent more damage to flexible pavements than a 52,500 lbs tridem group. To minimize premature damage to pavement and bridges, and to achieve service life expectancy for them, the Department encourages industry to travel with loads of least size and weight that are within current policies.

Recently, the Department revised TPPM 2006-04 to include green weight chart for tridem axles and included the 10'-4" axle spread (see TPPM 2009-01, 2009-02) for two tridems in a combination. The Department has issued a new TPPM to allow equal weight distribution between bonus and non-bonus tridem groups. This new TPPM will provide bonus weights that are within five percent of the maximum allowable weights requested by industry in this proposal.