

**DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration**

[Docket No. NHTSA–2011–0110]

**Tesla Motors, Inc.; Grant of Petition for Temporary Exemption From the Electronic Stability Control Requirements of FMVSS No. 126****AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).**ACTION:** Notice of grant of a petition for temporary exemption from Federal Motor Vehicle Safety Standard (FMVSS) No. 126, *Electronic Stability Control Systems*.

**SUMMARY:** This notice grants the petition of Tesla Motors, Inc. (Tesla) for the temporary exemption of its Roadster model from the electronic stability control requirements of FMVSS No. 126. The basis for the exemption is that the exemption would facilitate the development or field evaluation of a low-emission motor vehicle and would not unreasonably reduce the safety level of that vehicle.

**DATES:** The exemption is effective September 28, 2011, and remains in effect until November 7, 2011.

**FOR FURTHER INFORMATION CONTACT:** David Jasinski, Office of the Chief Counsel, NCC–112, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., West Building 4th Floor, Room W41–326, Washington, DC 20590. *Telephone:* (202) 366–2992; *Fax:* (202) 366–3820.

**SUPPLEMENTARY INFORMATION:****I. Statutory Basis for Temporary Exemptions**

The National Traffic and Motor Vehicle Safety Act (Safety Act), codified as 49 U.S.C. Chapter 301, authorizes the Secretary of Transportation to exempt, on a temporary basis and under specified circumstances, motor vehicles from a motor vehicle safety standard or bumper standard. This authority is set forth at 49 U.S.C. 30113. The Secretary has delegated the authority in this section to NHTSA.

NHTSA established 49 CFR part 555, *Temporary Exemption from Motor Vehicle Safety and Bumper Standards*, to implement the statutory provisions concerning temporary exemptions. A vehicle manufacturer wishing to obtain an exemption from a standard must demonstrate in its application (A) That an exemption would be in the public interest and consistent with the Safety Act and (B) that the manufacturer

satisfies one of the following four bases for an exemption: (i) Compliance with the standard would cause substantial economic hardship to a manufacturer that has tried to comply with the standard in good faith; (ii) the exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to the safety level of the standard; (iii) the exemption would make the development or field evaluation of a low-emission motor vehicle easier and would not unreasonably lower the safety level of that vehicle; or (iv) compliance with the standard would prevent the manufacturer from selling a motor vehicle with an overall safety level at least equal to the overall safety level of nonexempt vehicles.

For an exemption petition to be granted on the basis that the exemption would make the development or field evaluation of a low-emission motor vehicle easier and would not unreasonably lower the safety level of the vehicle, the petition must include specified information set forth at 49 CFR 555.6(c). The main requirements of that section include: (1) Substantiation that the vehicle is a low-emission vehicle; (2) documentation establishing that a temporary exemption would not unreasonably degrade the safety of a vehicle; (3) substantiation that a temporary exemption would facilitate the development or field evaluation of the vehicle; (4) a statement of whether the petitioner intends to conform to the standard at the end of the exemption period; and (5) a statement that not more than 2,500 exempted vehicles will be sold in the United States in any 12-month period for which an exemption may be granted.

**II. Electronic Stability Control Systems Requirement**

In April 2007, NHTSA published a final rule requiring that vehicles with a gross vehicle weight rating of 4,536 kilograms (kg) (10,000 pounds) or less be equipped with electronic stability control (ESC) systems. ESC systems use automatic computer-controlled braking of individual wheels to assist the driver in maintaining control in critical driving situations in which the vehicle is beginning to lose directional stability at the rear wheels (spin out) or directional control at the front wheels (plow out). An anti-lock brake system (ABS) is a prerequisite for an ESC system because ESC uses many of the same components as ABS. Thus, the cost of complying with FMVSS No. 126 is less for vehicle models already equipped with ABS.

Preventing single-vehicle loss-of-control crashes is the most effective way to reduce deaths resulting from rollover crashes. This is because most loss-of-control crashes culminate in the vehicle leaving the roadway, which dramatically increases the probability of a rollover. NHTSA's crash data study of existing vehicles equipped with ESC demonstrated that these systems reduce fatal single-vehicle crashes of passenger cars by 55 percent and fatal single-vehicle crashes of light trucks and vans (LTVs) by 50 percent.<sup>1</sup> NHTSA estimates that ESC has the potential to prevent 56 percent of the fatal passenger car rollovers and 74 percent of the fatal LTV first-event rollovers that would otherwise occur in single-vehicle crashes.<sup>2</sup>

The ESC requirement became effective for substantially all vehicles on September 1, 2011.

**III. Overview of Petition**

In accordance with 49 U.S.C. 30113 and the procedures in 49 CFR Part 555, Tesla Motors, Inc. (Tesla) submitted a petition dated June 7, 2011 asking the agency for a temporary exemption from the electronic stability control requirements of FMVSS No. 126. The bases for the application are, first, that the exemption would make the development or field evaluation of a low-emission vehicle easier and would not unreasonably lower the safety level of that vehicle and, second, that compliance would cause substantial economic hardship to a petitioner that has tried in good faith to comply with the standard. However, the agency has decided to grant the petition on the basis that an exemption would make the development or field evaluation of a low-emission vehicle easier and would not unreasonably lower the safety level of the vehicle. Accordingly, this document will not further discuss the portions of the petition related to only the economic hardship arguments.

Tesla has requested an exemption for the Roadster model for a period from September 1, 2011 to December 31, 2011. In a supplemental filing, Tesla stated that it now intends to manufacture no more than 80 vehicles under the requested exemption and that manufacturing would be complete by October 20, 2011.

Tesla is a Delaware corporation headquartered in California with sales offices throughout the United States and overseas. Although Tesla currently sells

<sup>1</sup> Sivinski, R., *Crash Prevention Effectiveness of Light-Vehicle Electronic Stability Control: An Update of the 2007 NHTSA Evaluation*; DOT HS 811 486 (June 2011).

<sup>2</sup> *Id.*

only one vehicle, the Roadster, Tesla is scheduled to begin production and sale of a new all-electric vehicle, the Model S, in 2012. Tesla is also developing electric vehicle power train solutions for the Toyota Motor Corporation RAV 4 sport utility vehicle and the Daimler AG Mercedes A Class electric vehicle.

Tesla began production of the all-electric Roadster in 2008. The Roadster has a single-speed electrically actuated automatic transmission and three phase, four pole AC induction motor. The Roadster has a combined range of 245 miles on a single charge. Under an agreement with Group Lotus plc (Lotus), Tesla purchases the Roadster "glider," which uses the chassis and several other systems of the Lotus Elise. The gliders are manufactured under Tesla's supervision and direction at a Lotus factory in the United Kingdom and then shipped to Menlo Park, California, where installation of the power train and other final steps are taken prior to sale of the vehicle in the United States.

According to Tesla, the Roadster was conceived as a limited proof-of-concept vehicle for later generations of Tesla vehicles. Tesla is preparing to introduce its next electric vehicle, the four-door fully electric Model S sedan. Tesla states that the Model S will meet or exceed all FMVSSs in effect when the vehicle is released for production in 2012. The Model S will carry up to seven passengers for 300 miles on a single charge, but at less than half the price of the Tesla Roadster. In parallel with the development of the Model S, Tesla is developing electric power trains for two other vehicles intended for wide distribution—the Toyota RAV 4 and Mercedes A Class electric vehicles. For these reasons, Tesla asserts that granting the exemption will support the development and evaluation of electric vehicles by Toyota and Mercedes, as well as by Tesla itself.

Tesla explains in its petition how the continued sale of Roadster vehicles will support development and field evaluation of a highway-capable electric vehicle. Tesla states that the development and sale of the Roadster model has allowed it to develop its next all-electric vehicle, the Model S. Tesla states that, with the permission of vehicle owners, it has used data from computers installed in on-road Roadsters related to vehicle operation, operating conditions, charging conditions, state of charge, and other vehicle performance parameters to determine how best to optimize its battery design and vehicle software for future vehicle offerings such as the Model S. Tesla believes that allowing the sale of additional Roadsters will

continue to enrich and add to its database of information for future electric vehicle development. Tesla states that it cannot replicate this data in laboratory or other non-highway conditions. Tesla contends that the database from Roadster vehicles is the most substantial real-world database available to government agencies such as NHTSA that are involved in the evaluation of electric vehicles. Tesla also contends that the 80 additional Roadster vehicles covered by its exemption request have the most up-to-date software, hardware, controls and power electronics of any Tesla vehicles, and that their operation therefore will generate particularly valuable additional data that is most valuable addition to the Tesla database. Because these Roadsters incorporate the latest generation of technology and apply the most up-to-date knowledge developed by Tesla, the company also asserts that they are the most valuable vehicles for the development and release of Tesla's next electric vehicle, the Model S.

Tesla believes that safety will not be unduly compromised if the exemption is granted. In support of this assertion, Tesla cites its inclusion of a traction control system (TCS) on its vehicles. Tesla's TCS is comprised of software, wheel speed sensors, and the drive system electronic control unit (ECU). Tesla states that its TCS has many elements of an ESC system required by FMVSS No. 126. Tesla claims that the TCS is able to detect slip in the drive wheels through the vehicle's ECU and that the vehicle will limit drive power until wheel spin is controlled. However, Tesla notes that the TCS does not have the capability to independently monitor or adjust steering inputs to prevent oversteer or understeer, nor is it capable of applying brakes independent of driver input, both of which are required by FMVSS No. 126.

Further, Tesla believes that the lack of ESC systems on the Roadster will not unduly compromise safety based on the intended use of the Roadster. The Roadster is a low, two-seat sport coupe. Tesla believes that, while the Roadster is capable of handling slippery roads due to ice and snow, most owners either do not use their Roadsters during winter months or sharply limit their use.

Tesla contends that denial of its petition will jeopardize Tesla's ability to make the transition to production of the Model S and other electric vehicles. Tesla states that it currently employs approximately 1,100 people, primarily in Palo Alto and Fremont, California. Tesla had intended its manufacturing and production line workers to complete manufacture of the remaining

Roadsters and then so shift their duties over to the Model S. Tesla asserts that it is not yet ready to transfer many Roadster manufacturing employees to the production operations for the Model S, and that it therefore cannot support Roadster manufacturing employees for the final quarter of 2011. Without the additional 80 vehicles covered by its exemption request, Tesla's production and manufacturing would have a significant gap in production time lines. As a result, Tesla may be forced to lay off a significant number of employees if it is not granted an exemption. Further, because the Roadster is the only vehicle Tesla offers for sale in the United States, Tesla contends that the cancellation of the program would result in a significant loss of market for Tesla.

In its petition, Tesla asserts that the continued sale of a high-profile vehicle like the Roadster will make the U.S. public familiar with the new possibilities of electric vehicles. The Roadster was intended to demonstrate that electric vehicles can provide all the performance, range and capabilities of internal combustion engine vehicles, but without any emissions. Tesla contends that continued production of the Roadster will help to ensure that the public remains aware of the viability and practicality of high performance, long range electric vehicles, as it makes the transition to the Model S.

Tesla also believes that the exemption is in the public interest. As stated above, Tesla asserts that, without the exemption, it may be required to lay off a significant number of employees. Further, Tesla notes that denying this petition would result in fewer electric vehicles for sale in the United States. Tesla points out that, on the basis of each mile driven, vehicles like the Roadster that operate only on electricity have the greatest impact on reducing U.S. dependence on foreign oil. As Tesla states in its petition, electric vehicles are not just low-emission vehicles that would qualify for this exemption, but zero emission vehicles. Finally, Tesla believes that continuing to sell a long range, highway-capable, battery-powered electric vehicle in the United States will lead to more electric vehicles entering the fleet.

#### IV. Notice of Receipt

On August 5, 2011, we published in the **Federal Register** (76 FR 47639) a notice of receipt of Tesla's petition for temporary exemption, and provided an opportunity for public comment. We received one comment from the Advocates for Highway & Auto Safety (Advocates).

### V. Agency Analysis, Response to Comment, and Decision

In this section, we provide our analysis and decision regarding Tesla's temporary exemption request concerning the ESC requirements of FMVSS No. 126, including our response to the comment received by the Advocates.

As discussed below, we are granting Tesla's petition for the Roadster to be exempted, for a period of 40 days after the date of publication of this notice in the **Federal Register**, from the requirements of FMVSS No. 126. The agency's rationale for this decision is as follows:

First, we conclude that Tesla has shown that an exemption from the ESC requirements would make the development or field evaluation of a low-emission motor vehicle easier. Specifically, we agree with Tesla that, by producing additional Roadster models, Tesla will be able to use data from computers installed on those vehicles to assist it in optimizing its battery design and vehicle software for future all-electric vehicle offerings, including its upcoming Model S, as well as vehicles produced by other manufacturers working with Tesla. Furthermore, Tesla's willingness to share data from its Roadster database with NHTSA and other federal agencies means that the additional data from the operation of these additional Roadsters will help to advance the development, and to ensure the safety, of other electric vehicles. We believe that the data from the Roadster database can be used to ensure the safety of not only Tesla's future vehicles, but also electric vehicles produced by all other manufacturers.

Further, the production of additional Roadster models would allow consumers of all-electric vehicles an additional option during the exemption period. We agree with Tesla that continued production of a high-profile vehicle like the Roadster, even for the very limited period of 40 days and in the limited quantity of 80 vehicles, will help to demonstrate to the U.S. public the performance, range and capabilities of electric vehicles. We also agree with Tesla that continued production of the Roadster for the limited period requested by Tesla will ease Tesla's transition to the development and production of the all-electric Model S. For that reason we agree that denial of the petition could jeopardize Tesla's ability to produce the Model S and other electric vehicles in the future. For these reasons, we agree with Tesla that granting this petition will encourage the

development and sale of highway-capable electric vehicles by Tesla and also by other manufacturers.

Second, NHTSA concludes that the grant of this exemption would not unreasonably lower the safety or impact protection level of the vehicle. In particular, we have considered that Tesla produces a low, two-seat sport vehicle. The low center of gravity provides some additional protection from loss-of-control crashes. Furthermore, the nature of the vehicle is such that we agree with Tesla's assertion that Roadster owners would be less likely to use their vehicles in winter months or during rain. Because the Roadster would be used less during winter months or during rain, a Roadster is likely to be driven fewer miles compared to an average vehicle. We believe that this factor diminishes the likelihood that the failure to include an ESC system on the Roadster would unreasonably lower the safety level of the vehicle.

The Advocates argue that ESC is an important and proven safety improvement. In support of their argument, the Advocates cite agency and industry research, including the agency's most recent study of ESC system effectiveness.<sup>3</sup> While the agency continues to believe that ESC has a substantial effect on the number of vehicle crashes, the relevant inquiry is not the effectiveness of ESC systems. Rather, the relevant inquiry is whether an exemption would unreasonably lower the safety level of the vehicle in question. Although the agency has found substantial benefits resulting from ESC systems on passenger cars, the agency finds that the absence of ESC on the Roadster does not unreasonably lower the safety level of that specific vehicle. We believe that the expected use patterns of the Roadster, including the relatively low number of miles driven by the average Roadster owner, support this finding.

The Advocates also argue that Tesla cannot guarantee the conditions under which the vehicle will be used. That is, although Tesla argues that Roadsters are less likely to be driven in winter months or during rain, Tesla cannot guarantee that. However, we believe that the Advocates would hold Tesla to too high of a burden of proof that would essentially foreclose the possibility of any exemption being granted. Moreover, although Tesla has not provided data in support of its assertions, we find Tesla's assertions that a low, soft-top convertible vehicle is less likely to be

driven in the rain, snow, or winter months to be plausible and persuasive.

The Advocates also argue that Tesla's limited production of exempted vehicles does not justify an exemption. The Advocates argue that rarer vehicles are not safer just because they are rarer. While the agency cannot dispute the assertion that rarer vehicles are not safer because they are rarer, it does not follow that the agency should not consider the expected production volume in support of an exemption request. If Tesla intended to produce 2,500 vehicles per year over two years rather than 80 vehicles in a little over a month, the agency would judge Tesla's petition differently than the petition now before it.

Moreover, it is not just the limited number of Roadsters that would be produced under the exemption, but the limited number of miles the average Roadster is driven compared to other cars that Tesla cites in support of its petition. The Advocates do not dispute the relatively small number of vehicles that Tesla intends to produce under the exemption and the relatively low-mileage use of the Roadster when compared to other vehicles.

The Advocates also contend that, because an FMVSS establishes only the minimum performance requirements necessary for occupant protection, an exemption must only be granted when absolutely necessary. However, the statutory requirements for granting an exemption require only a finding that an exemption is in the public interest and meets the objectives of the Safety Act, in addition to the specific requirements set forth for each of the four bases for an exemption.

We also observe that a very limited number of vehicles would be produced under this temporary exemption. Manufacturers granted exemptions on the basis of furthering the development or field evaluation of a low-emission vehicle are allowed to sell as many as 2,500 exempted vehicles in any 12-month period. Tesla has stated that it intends to produce only 80 vehicles during the exemption period.

The Advocates express a concern that Tesla has, in this petition, requested a shorter exemption period than in its request for an exemption from the advanced air bag requirements of FMVSS No. 208. The Advocates suggest that the longer exemption period sought in the advanced air bag exemption petition suggests that Tesla may continue Roadster production beyond the date sought for this exemption. We reject this argument as a basis for denying Tesla's petition. We give greater weight to Tesla's most recent statement

<sup>3</sup> See *supra*, note 1.

that it intends to end Roaster production within less than 50 days of the grant of this exemption than to any prior statements regarding its production plans made in the context of prior submissions to the agency.<sup>4</sup>

Based on the foregoing, we believe that any impact on safety from granting the petition would be negligible and that Tesla has satisfied the eligibility criteria for an exemption for the development or field evaluation of a low-emission motor vehicle.

The Advocates raise other issues in their comments that the agency need not address in detail. Specifically, the Advocates argue that Tesla had ample time to develop an FMVSS No. 126-compliant ESC system because the final rule mandating ESC systems was published in the same year that Roadster production first began. The Advocates also state that the cost of including an ESC system is small relative to the cost of the Roadster.<sup>5</sup> The Advocates further argue that the loss of income from sales of Roadsters that Tesla did not intend to produce cannot be considered an economic hardship. Each of these comments relate to requirements for economic hardship petitions. Because the agency has determined that Tesla's exemption is justified under a different basis, the agency need not address these three issues specifically in this notice.

We also find that this exemption would be consistent with the public interest and the objectives of the Safety Act. NHTSA has traditionally found that the public interest is served by affording consumers a wider variety of motor vehicles, by encouraging the development of fuel-efficient and alternative-energy vehicles, and providing additional employment opportunities. We believe that all three of these public interest considerations would be served by granting Tesla's petition.

We note that the denial of this request would remove one of the few electric vehicles that is currently being sold in the U.S. market and that granting this petition would afford U.S. consumers the continued choice of this all-electric vehicle. As explained above, granting this petition will ease the development of the Model S as well as other electric

vehicles, while conversely denial of the petition could compromise Tesla's ability to move forward with the Model S. We believe that granting this petition will have a positive impact on U.S. employment in the automotive industry, and that denial of the petition could directly impact the jobs of current Tesla employees supporting the Roadster.

Additionally, we believe that the requested exemption will have a limited impact on general motor vehicle safety because of the small number of vehicles that can be produced under this exemption. Finally, it is critical to the agency's decision that Tesla is requesting a very short exemption period and intends to sell only vehicles that comply with all applicable FMVSS after the exemption period.

We note that, as explained below, prospective purchasers will be notified that the vehicle is exempted from the ESC requirements of Standard No. 126. Under § 555.9(b), a manufacturer of an exempted vehicle must affix securely to the windshield or side window of each exempted vehicle a label containing a statement that the vehicle conforms to all applicable FMVSSs in effect on the date of manufacture "except for Standard Nos. [listing the standards by number and title for which an exemption has been granted] exempted pursuant to NHTSA Exemption No.

\_\_\_\_." This label notifies prospective purchasers about the exemption and its subject. Under § 555.9(c), this information must also be included on the vehicle's certification label.<sup>6</sup>

In consideration of the foregoing, we conclude that granting the requested exemption from FMVSS No. 126, *Electronic Stability Control Systems*, would facilitate the field evaluation or development of a low-emission vehicle, and would not unreasonably lower the safety or impact protection level of that vehicle. We further conclude that granting this exemption would be in the public interest and consistent with the objectives of the Safety Act.

In accordance with 49 U.S.C. 30113(b)(3)(B)(iii), Tesla is granted NHTSA Temporary Exemption No. EX 11-03 from FMVSS No. 126. The exemption is for the Roadster model and shall remain effective from the date on which notice of this decision is published in the **Federal Register** for a period of 40 days, as indicated in the **DATES** section of this document.

<sup>6</sup> Tesla's label would be required to list both its exemption from FMVSS No. 126 and its exemption from the advanced air bag requirements of FMVSS No. 208, which has been extended in a separate decision that is published in today's **Federal Register**.

**Authority:** (49 U.S.C. 30113; delegations of authority at 49 CFR 1.50. and 501.8)

Issued on: September 22, 2011.

**David L. Strickland,**  
*Administrator.*

[FR Doc. 2011-24899 Filed 9-27-11; 8:45 am]

**BILLING CODE 4910-59-P**

## DEPARTMENT OF THE TREASURY

### Submission for OMB Review; Comment Request

September 22, 2011.

The Department of the Treasury will submit the following public information collection requirements to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104-13 on or after the date of publication of this notice. A copy of the submissions may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding these information collections should be addressed to the OMB reviewer listed and to the Treasury PRA Clearance Officer, Department of the Treasury, 1750 Pennsylvania Avenue, NW., Suite 11010, Washington, DC 20220.

**DATES:** Written comments should be received on or before October 27, 2011 to be assured consideration.

#### Internal Revenue Service (IRS)

*OMB Number:* 1545-0863.

*Type of Review:* Extension without change of a currently approved collection.

*Title:* LR-218-78 (Final) Product Liability Losses and Accumulations for Product Liability Losses.

*Abstract:* Generally, a taxpayer who sustains a product liability loss must carry the loss back 10 years. However, a taxpayer may elect to have such loss treated as a regular net operating loss under section 172. If desired, such election is made by attaching a statement to the tax return. This statement will enable the IRS to monitor compliance with the statutory requirements.

*Respondents:* Private Sector: Businesses or other for-profits.

*Estimated Total Burden Hours:* 2,500.

*OMB Number:* 1545-1647.

*Type of Review:* Extension without change of a currently approved collection.

*Title:* Revenue Procedure 2001-21 Debt Roll-Ups.

*Abstract:* This revenue procedure provides for an election that will facilitate the consolidation of two or more outstanding debt instruments into a single debt instrument. Under the

<sup>4</sup> Furthermore, the effect of Tesla expressing different production plans in its submissions related to this petition than in its submissions on the advanced air bag petition are better addressed in the context of the agency's response to the advanced air bag petition because Tesla sought a longer exemption from the advanced air bag requirements.

<sup>5</sup> The agency does take note, however, that the cost of implementing design modifications to the Roadster to accommodate ESC would not be trivial.