



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

Nov.27, 2013

1200 New Jersey Avenue SE.  
Washington, DC 20590

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. James Chen  
Vice President of Regulatory Affairs  
Tesla Motors, Inc.  
1050 K Street, N.W., Suite 101  
Washington DC 20001

NVS-212  
PE13-037

Dear Mr. Chen:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE13-037) to investigate underbody deformation in certain model year (MY) 2013 Model S motor vehicles resulting from impacts with road debris, including, but not limited to, consequent intrusion into propulsion battery compartment(s) and the associated risks to motor vehicle safety, and to request certain information. The Tesla Model S is manufactured by Tesla Motors Inc.

ODI has received information on two incidents of deformation/intrusion into the propulsion battery caused by impact with roadway debris and resulting in a thermal reaction and fire in 2013 Tesla Model S vehicles. The office is also aware that the Model S may be equipped with an active suspension system that automatically adjusts the vehicle's ride height under certain driving conditions, such as at highway speeds.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All 2013 Tesla Model S manufactured for sale or lease in the United States, including, but not limited to, the District of Columbia, and current U.S. territories and possessions.
- **Subject component:** The high-voltage propulsion battery, including its enclosure baseplate (skid plate) and the components and materials it is constructed of, and all components and materials contained within the enclosure including the individual battery cells.
- **Tesla:** Tesla Motors, Inc., and all of their past and present officers and employees, whether assigned to their principal offices or any of its field or other locations, including all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Tesla

(including all business units and persons previously referred to), who are or, in or after 2006, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
- b. Testing, assessment or evaluation;
- c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
- d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.

**Alleged defect:** Deformation or damage to the subject component from impacts to the subject component or failure of the subject component to withstand an impact such that the propulsion battery or individual cells of the battery are damaged by the impact, and/or shut down of the vehicle propulsion system, stalling of the vehicle or fire or other thermal event in the propulsion battery following an impact to the subject component.

- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Tesla, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)"

also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by Tesla or not. If a document is not in the English language, provide both the original document and an English translation of the document.

**Short:** The term "Short" refers to an unintended change in the path of electrical current flow within a circuit, battery, semiconductor, conductor or electro-mechanical device.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Tesla has previously provided a document to ODI, Tesla may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Tesla's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject vehicles Tesla has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Tesla, state the following:
  - a. Vehicle identification number (VIN);
  - b. Power rating/capacity of the propulsion battery;
  - c. Whether the suspension system (ride height) is actively controlled;
  - d. Date of manufacture;
  - e. Date warranty coverage commenced; and,
  - f. The State in the United States where the vehicle was originally sold or leased.

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA."

2. State the number of each of the following, received by Tesla, or of which Tesla is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports involving a crash, injury or fatality;
  - d. Reports involving a fire;
  - e. Reports involving a thermal reaction and/or short not included in Tesla's response to subpart d above;
  - f. Property damage claims;
  - g. Third-party arbitration proceedings where Tesla is or was a party to the arbitration; and
  - h. Lawsuits, both pending and closed, in which Tesla is or was a defendant or codefendant.

For subparts "a" through "h," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "h," provide a summary description of the alleged problem and causal and contributing factors and Tesla's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "g" and "h," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
  - a. Tesla's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether a fire, thermal reaction and/or short is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Tesla used for organizing the documents. Describe in detail the search methods and search criteria used by Tesla to identify the items in response to Request No. 2.
5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Tesla to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Tesla's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

6. Describe in detail the search methods and search criteria used by Tesla to identify the claims in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State the terms of the new vehicle warranty coverage offered by Tesla on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Tesla offered for the subject vehicles and state the number of vehicles that are covered under each such extended warranty.
7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Tesla has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Tesla is planning to issue within the next 120 days.

8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions," and including actions conducted during subject vehicle design, development, and validation) that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Tesla. For each such action, provide the following information:
  - a. Action title or identifier;
  - b. The actual or planned start date;
  - c. The actual or expected end date;
  - d. Brief summary of the subject and objective of the action;
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
  - f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

9. Provide detailed engineering drawings depicting dimensional specifications of the subject component and including all subassemblies and mechanical, electrical, and battery components. The drawings should contain sufficient detail, such as sectional views of the battery cells/modules that show proximity to the enclosure baseplate and/or other conductive materials which would allow ODI to assess the consequences of enclosure baseplate deformation or damage and the likelihood that it could lead to cell damage.
10. Describe all modifications or changes made by, or on behalf of, Tesla in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:
  - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
  - b. A detailed description of the modification or change;
  - c. The reason(s) for the modification or change;
  - d. The part number(s) (service and engineering) of the original component;
  - e. The part number(s) (service and engineering) of the modified component;
  - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
  - g. When the modified component was made available as a service component; and
  - h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Tesla is aware of which may be incorporated into vehicle production within the next 120 days.

11. Describe all modifications or changes made by, or on behalf of, Tesla in the function and operation of the actively controlled suspension system, from the start of production to date,

which affects, or may affect the subject vehicle ride height, including but not limited to software or other programming modifications/revisions. For each such modification, provide the following information:

- a. A detailed description of the modification;
- b. The reason(s) for the modification as it pertains to the alleged defect;
- c. The changes in vehicle ride height due to the modification;
- d. Whether the modification was incorporated into vehicle production, and if so, the date it was incorporated;
- e. Whether the modification was introduced (released) as a service update for consumer owned subject vehicles, and if so;
  - i) The date the modification was released;
  - ii) The number of subject vehicles available for updated (i.e., how many were produced to the original/unmodified condition);
  - iii) The number of consumer owned vehicles that have been modified/updated to date; and,
- f. A description of how the service update is applied (the procedure or method used to make the modification) to an affected vehicle.

Also, provide the above information for any modification or change that Tesla is aware of which may be incorporated into vehicle production, or as a service update, within the next 120 days.

12. Describe in detail all possible consequences to the vehicle from an impact to the subject component that damages the battery. Describe in detail how these possible consequences were addressed in the design of the subject vehicle and the limits of that design to prevent damage to the propulsion battery, stalling and fires.

13. Furnish Tesla's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s); and,
- d. The risk to motor vehicle safety that it poses.

### **Legal Authority for This Request**

This letter is being sent to Tesla pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

### **Civil Penalties**

Tesla's failure to respond promptly and fully to this letter could subject Tesla to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) The Vehicle Safety Act, as amended, 49 U.S.C. § 30165(a)(3), provides for civil penalties of up to \$7,000 per violation per day, with a maximum of \$35,000,000 for a related series of daily violations, for failing or

refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond completely, accurately, and in a timely manner to ODI information requests. The maximum civil penalty of \$7,000 per violation per day is established by 49 CFR 578.6(a)(3). The maximum civil penalty of \$35,000,000 for a related series of daily violations of 49 U.S.C. § 30166 is authorized by 49 U.S.C. § 30165(a)(3) as amended by § 31203(a)(1)(B) of the Moving Ahead for Progress in the 21<sup>st</sup> Century Act, Public Law 112-141.

If Tesla cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Tesla does not submit one or more requested documents or items of information in response to this information request, Tesla must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

### **Confidential Business Information**

**All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to PE13-### in Tesla's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If Tesla claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Tesla must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Tesla is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the phrase "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONTAINS CONFIDENTIAL BUSINESS INFORMATION" (as appropriate) must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 49 CFR 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats. *See* 49 CFR 512.6(c) (as amended by 72 Fed. Reg. 59434 (October 19, 2007)).

If you have any questions regarding submission of a request for confidential treatment, contact Otto Matheke, Senior Attorney, Office of Chief Counsel at otto.matheke@dot.gov or (202) 366-5253.



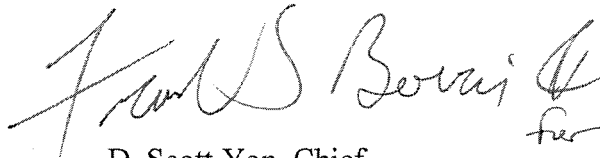
**Due Date**

Tesla's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by January 14, 2014. Tesla's response must include all non-confidential attachments and a redacted version of all documents that contain confidential information. If Tesla finds that it is unable to provide all of the information requested within the time allotted, Tesla must request an extension from me at (202) 366-0139 no later than five business days before the response due date. If Tesla is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Tesla then has available, even if an extension has been granted.

Please send email notification to Will Godfrey at [will.godfrey@dot.gov](mailto:will.godfrey@dot.gov) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when Tesla sends its response to this office and indicate whether there is confidential information as part of Tesla's response.

If you have any technical questions concerning this matter, please call Will Godfrey of my staff at (202) 366-5231.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Scott Yon". The signature is fluid and cursive, with a large initial "D" and "S".

D. Scott Yon, Chief  
Vehicle Integrity Division  
Office of Defects Investigation