



U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

1200 New Jersey Avenue, SE
Washington, DC 20390

JAN -6 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Carmen Benavides
Director, Product Investigations
Structure and Safety Integration
General Motors LLC
30001 Van Dyke - Mail Code 480-210-2V1
Warren, MI 48090-9055

NVS-212eer
PE11-037

Dear Ms. Benavides:

This letter confirms that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE11-037) to investigate potential risks involved from intrusion damage to the high voltage battery on model year 2011-2012 Chevrolet Volt vehicles manufactured by General Motors Company (GM), and requests certain information.

At the opening of the investigation, and through testing conducted, ODI had information of three occurrences in which an intruded battery led to a thermal event for battery pack configurations on model years 2011-2012 Chevrolet Volts. Two of these occurrences later led to a fire that consumed the battery pack. Currently ODI is unaware of any consumer or other reports related to battery intrusion and/or a vehicle fire.

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

- **Subject vehicles:** all model year 2011-2012 Chevrolet Volt vehicles manufactured for sale or lease in the United States.
- **Subject component(s):** the high voltage battery, which includes the battery, the battery enclosure, and all components and materials contained within the battery enclosure.

GM: General Motors LLC, General Motors Company, its predecessor General Motors Corporation, 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 GM (including all business units and persons previously referred to), who are or, in or after 2005, 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:** Any piercing, impingement, buckling, separation, fracture, collapse, or other damage of the subject component from intrusion into the subject vehicle in an in-service (i.e., consumer use) vehicle crash or impact that results in leakage of coolant from the battery cooling system, or in a vehicle fire/thermal event.
 - **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 GM, 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 GM or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **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 (MY)," "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 GM has previously provided a document to ODI, GM 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 GM'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 GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:
 - a. Vehicle identification number (VIN);
 - b. Date of manufacture;
 - c. Date warranty coverage commenced;
 - d. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2007, or a compatible format, entitled "PRODUCTION DATA."

2. State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

- a. Consumer complaints;
- b. Field reports, including dealer field reports, field engineering reports and test fleet complaint logs;
- c. Reports involving an injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject component, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "d" 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 "f," provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "c through f" 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. GM'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 fire or thermal event is alleged;
 - j. Whether property damage is alleged;
 - k. Number of alleged injuries, if any; and
 - l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2007, 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 GM used for organizing the documents.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM 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. GM's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair or replacement 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. Whether the claim occurred subsequent to a recall repair;
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair or replacement.

Provide this information in Microsoft Access 2007, or a compatible format, entitled "WARRANTY DATA."

6. Describe in detail the search criteria used by GM to identify the claims identified 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, by make and model year, the terms of the new vehicle warranty coverage offered by GM 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 GM offered for the subject vehicles and state by option, model, and model year, 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 GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This request specifically includes any bulletins, advisories, informational documents, consumer correspondence, training documents or other documents or communications related to the subject vehicle Customer Satisfaction Program (CSP) that GM announced on Thursday, January 5, 2012.
8. Fully describe all assessments, investigations, analyses, field surveys, and/or evaluations (collectively, "actions") of in-service subject vehicle crashes that have occurred in the field

(in consumer's use), including crashes where no intrusion, or vehicle fire, or thermal event occurred, that have been conducted, or are being conducted, by, or for, GM. 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. A summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
- f. A summary of the findings and/or conclusions resulting from the action; and
- g. If GM conducted a field inspection or other evaluation of a subject vehicle crash, provide:
 - i) The date and location of the crash;
 - ii) The date that GM became aware of the crash;
 - iii) The date and location of the inspection;
 - iv) Number of injuries alleged;
 - v) Number of fatalities alleged;
 - vi) Photographs of the subject and/or other vehicles/objects involved in the crash; and
 - vii) Copies of any electronic data taken from the subject vehicle (e.g., EDR).

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. Describe all subject vehicle side impact pole tests that GM has conducted that involved full vehicles tests on subject vehicles containing the repair described in the CSP GM announced on Thursday, January 5, 2012, or subject vehicles upgraded to an improved production condition intended to reduce subject component intrusion in a side impact crash, or were conducted on unmodified subject vehicles that were produced in the same time period as the vehicle NCAP tested at the MGA test facility on May 5th, 2011, and for each test provide the following information:
 - a. GM's test number or ID;
 - b. The type of test conducted (e.g., 50% ATD pole, or 5% ATD pole)
 - c. The date and location where the test was conducted;
 - d. The VIN of the vehicle tested;
 - e. The design level/build condition of the vehicle under test (unmodified, modified to the CSP/field fix level, modified to a new production level, etc);
 - f. The speed the test was conducted at;
 - g. The complete test results, including the data collected (dummy injury measurements, vehicle crash pulse, etc) and photographs taken;
 - h. Whether any damage occurred to the subject component;
 - i. Whether any leakage of battery coolant occurred;
 - j. Whether a fire or thermal event occurred; and
 - k. Any other noted items of interest.

10. Describe all modifications or changes made by GM in the design, construction, material composition, manufacture, or assembly of the subject vehicles, 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. A detailed description of the modification or change and how it affects or impacts the alleged defect;
 - b. The date or approximate date on which the modification or change was, or will be, incorporated into component or vehicle production;
 - c. The date the original unmodified component or design level was withdrawn from production;
 - d. The supplier of each modified component; and
 - e. The models and model years of vehicles affected by the modification.

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

11. Describe in detail the contents of the service kit GM produced for remedying the subject vehicles as described in the CSP announced on Thursday, January 5, 2012 including:
- a. GM's part number(s) for the kit;
 - b. A list of the components provided in the kit;
 - c. The material specifications of each mechanical components provided in the kit;
 - d. The date the kit was, or will be, offered for sale or use; and
 - e. Provide one complete kit of parts, or other detailed information (drawings, photographs, etc) of the kit, for ODI assessment.

This letter is being sent to GM 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. GM's failure to respond promptly and fully to this letter could subject GM to civil penalties pursuant to 49 U.S.C. § 30165. It could also lead to an action to compel GM to respond.

If GM 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, GM does not submit one or more requested documents or items of information in response to this information request, GM 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.

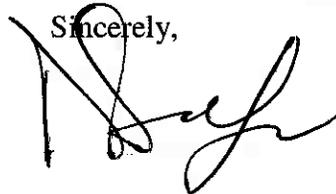
GM's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by January 13, 2011. **All confidential business information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition do not submit any confidential business information in the body of the letter submitted to this office. Please refer to PE11-037

in GM's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. If GM finds that it is unable to provide all of the information requested within the time allotted, GM must request an extension from me at (202) 366-0139 no later than one business day before the response due date. If GM 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 GM then has available, even if an extension has been granted.

If GM 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, GM 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 (69 Fed. Reg. 21409 et seq; April 21, 2004), to the Office of Chief Counsel (NCC-110), National Highway Traffic Safety Administration, Room W41-326, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. GM 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 word "CONFIDENTIAL" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 512.6.

Please send email notification to Emily Reichard (emily.reichard@dot.gov) and to ODI_IRresponse@dot.gov when GM sends its response to this office and indicate whether there is confidential information as part of GM's response.

If you have any technical questions concerning this matter, please call Emily Reichard of my staff, at (202) 366-4925.

Sincerely,
 1/6/12

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