



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

JUL 19 2013

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

NVS-212eer
RQ13-003

Dear Ms. Benavides:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Recall Query (RQ13-003) to investigate Generator Control Module (GCM) overheating that could lead to smoke and/or fire. The overheating occurs in certain model year (MY) 2012-2013 Buick Regal and LaCrosse, and MY 2013 Chevrolet Malibu Eco vehicles, equipped with eAssist, manufactured by General Motors LLC (GM).

Between October 2012 and May 2013, GM issued a number of service bulletins to address overheating in the GCM of unsold Regal, LaCrosse, and Malibu Eco vehicles. These bulletins instructed dealers to stress the vehicle's GCM to identify potential failures. On May 3, 2013, GM submitted a recall notification (NHTSA No. 13V-173) to the agency covering certain Regal, LaCrosse, and Malibu Eco vehicles. GM's notice explained that the vehicles contained a safety related defect related to overheating problems in the GCM that could lead to smoke and/or fire. According to the recall notice, GM proposed remedying the vehicles by performing a service procedure similar to the procedure contained in the service bulletins that were issued between October 2012 and May 2013 and, if the procedure identified any failures, replace the GCM.

ODI has concerns with the service procedure of the proposed remedy identifying defective GCMs. Prior to the recall, GM noted that a fire occurred in a vehicle after it had a service update performed similar to the proposed remedy. The information provided in the GM's recall notification does not provide the agency with enough information to understand whether the proposed remedy would prevent similar incidents. Accordingly, the agency is seeking additional information related to GM's proposed remedy.

ODI understands that GM has, or may have, collected failed samples from subject vehicles that had been placed in service or were otherwise outside of GM's direct control. With respect to those parts, ODI requests that GM maintain the failed components and does not destroy or discard them without further discussion with the office.

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

- **Subject vehicles:** All 2012-2013 Buick Regal and LaCrosse, and MY 2013 Chevrolet Malibu Eco vehicles, equipped with eAssist and manufactured for sale or lease in the United States.
- **Subject component(s):** All hybrid-powertrain-system Generator Control Module (GCM) components, including all circuitry and hardware components located within it.
- **GM:** General Motors LLC, its predecessor General Motors Corporation, all of their past and present officers and employees, whether assigned to their principal offices or any of their 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 January 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:** The subject component or any of its internal components overheats, which may be manifested by odor, melting, smoke or fire as defined by 49 CFR 579.4(c).
- **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," "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. Make;

- c. Model;
- d. Model Year;
- e. Subject component part numbers and design versions installed as original equipment;
- f. Date of manufacture;
- g. Date warranty coverage commenced;
- h. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease); and
- i. Whether the vehicle received the service update prior to the recall notification on May 13, 2013.

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 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, 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. Property damage claims;
 - f. Third-party arbitration proceedings where GM is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "g," 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 "g," 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 "f" and "g," 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 crash is alleged;
- j. Whether a fire 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 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 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 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 the following:
 - a. Copies of all service, warranty, and other documents that relate to, or that 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 includes, but is not limited to, bulletins, advisories, informational documents, training documents, and communications with service, sales and parts departments of dealers or other documents or communications, with the exception of standard shop manuals; and
 - b. All versions of GM Bulletins 12238, PIC5520 and 12013, regardless of whether the documents are in interim, draft, or final form, up to and including the most recent version. Also include the latest draft copy of any communication that GM is planning to issue within the next 120 days.
 - c. Any and all communications between GM and any of the subject component suppliers, sub-suppliers, discrete component manufacturers or other entities involved in the design/manufacture of the subject components, that relate to, or that may relate to, the alleged defect in the subject vehicles.
8. GM Service Bulletin No. PIC5520 stated that "the Generator Control and Battery Module for the eAssist Buick LaCrosse and Buick Regal (GM part number 24259770) is being placed on restriction through the GM Technical Assistance Center (TAC)." Produce all documents related to the restriction referred to in PIC5520, as well as any other restrictions that relate to, or that may relate to, the subject component.
9. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") 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, GM. Include any and all actions GM conducted on failed or suspect subject components removed from subject vehicles that were sold or were otherwise outside of GM's control, and include any and all related document for each of these actions. 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.

10. Describe all modifications or changes made by, or on behalf of, GM in the design, material composition, manufacture, quality control, supply, or installation of the GCM in the subject vehicles, including components within the GCM 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. 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 GM is aware of which may be incorporated into vehicle production within the next 120 days.

11. Provide the following:

- a. A block diagram of the hybrid-powertrain system in the subject vehicles along with a description of the component's function(s);
- b. A diagram that describes the functions and location of the subject component;
- c. A glossary of all terms GM uses with respect to the hybrid-powertrain system in the subject vehicles. The glossary shall define designated acronyms and provide a description of the system and system components including the component's physical location and function. The glossary should also indicate when more than one term, name, or acronym is used to identify (or refers to) the same component or device (i.e., which terms/names mean the same thing); and,
- d. Describe the relationship among the term Generator Control Module as used in the May 3, 2013 recall notification letter (NHTSA Recall No. 13V-173) and the terms eAssist Powerpack and the BAS Power Inverter (BPIM)/Accessory Power Module (APM).

12. The service procedure utilized for recall remedy 13V-173 and earlier GM service actions as outlined and described in GM Recall Bulletins 13136 and 13142 (including all prior or later versions of the procedure that GM has issued or produced – referred to as the remedy procedure) includes an inspection and testing that stresses the GCM in order to identify potential failures in the subject component. With respect to each remedy procedure contained in Recall Bulletins 13136 and 13142, as it existed at any time:

- a. State the (earliest) date the remedy procedure was developed;
- b. State the date of the remedy procedure's latest revision or change;
- c. Identify each specific failure mechanism of the subject component (e.g., thermal management faults, component or device failures, resistive shorting between components or power and ground planes, circuit board defects such as contamination, resin defects, electro-migration paths, moisture, dendritic growth, flux contamination, plate through hole defect, etc.) that the remedy procedure is intended to, or is capable of, identifying;

- d. Separately for each failure mechanism in item (c), identify the specific component, device, and/or the circuit board (location) where the failure occurs or resides, or may occur or reside;
- e. Separately for each failure mechanism in item (c), describe in detail how the remedy procedure causes the failure mechanism to occur or manifest itself in the subject component, and what specific mechanisms or conditions does the remedy procedure introduce or exploit to cause or to manifest the failure;
- f. Identify and explain any substantive changes or revisions incorporated in each version of the remedy procedure that affected its ability to identify failure mechanisms or failure locations;
- g. For all changes or revisions identified in item (f), state the date of the change and describe in detail how the change affected the remedy procedure's efficacy;
- h. Describe in detail how the remedy procedure is capable of, or effective in, identifying any of the item (c) failure mechanism in the event they exist on the GCM circuit board that filters electrical voltage/power between the high voltage battery and the engine coupled starter/generator machine (e.g., if the capacitor printed circuit board (PCB) contains one of the item (c) failure mechanisms, can the remedy procedure identify it, and if so, how); and,
- i. Identify any GCM failure mechanisms known to GM that may result in the alleged defect that the procedure is unable to identify, and state the specific component/device/circuit board where the mechanism occurs/resides.

13. Furnish GM'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);
- d. The risk to motor vehicle safety that it poses; and
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning;

Legal Authority for This Request

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.

Civil Penalties

GM's failure to respond promptly and fully to this letter could subject GM 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(b), provides for civil penalties of up to \$7,000 per day, with a maximum of \$17,350,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 77 Fed. Reg. 70710 (November 27, 2012)). This includes failing to respond completely to ODI information requests.

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.

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 RQ13-003 in GM's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

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, to the Office of Chief Counsel (NCC-111), 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 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 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

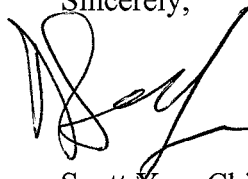
GM's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by September 9, 2013. If GM finds that it is unable to provide all of the information requested within the time allotted, GM must request an extension from me

at (202) 366-0139 no later than five business days 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.

Please send e-mail notification to Emily Reichard at 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,

A handwritten signature in black ink, appearing to read "Scott Yon", with a stylized flourish at the end.

7/19/13

Scott Yon, Chief
Vehicle Integrity Division
Office of Defects Investigation