U.S. Department of Transportation
**National Highway Traffic Safety Administration**

NHTSA

April 4, 2022

**VIA Email – Delivery and Read Receipt Requested**

Ms. Julia Hatcher
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NEF-107CL
EQ22-001
20V-107
20V-630
20V-701
21V-127
21V-560
22V-077
22V-162

Dear Ms. Hatcher:

The Office of Defects Investigation (ODI), Recall Management Division (RMD), is conducting an Equipment Query (EQ) in relation to seven (7) Part 573 Defect Reports from five (5) different vehicle manufacturers describing defects that may exist in high voltage batteries produced by LG Energy Solutions (LGES). The reports either identify the defects contained in the batteries as the root cause or as the potential cause of vehicle fires or stalls. This investigation has been assigned the identification EQ22-001.

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

- **LGES:** LG Energy Solutions, LG Chem, LG Electronics, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its 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 LGES (including all business units and persons previously referred to), who are or were involved in any way with any of the following related to the alleged defect in the subject equipment:

  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, lawsuits or arbitrations; 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.

- **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 LGES, 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 LGES 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 C.F.R. § 579.4.

In a Part 573 Report dated February 24, 2020, Mercedes Benz USA, LLC (MBUSA) notified NHTSA of a safety-related defect in one 2019 Smart Fortwo Electric Drive vehicle. This filing was assigned Recall No. 20V-107. MBUSA noted that this vehicle received an LG Chem (LG) high voltage battery that may contain a defect allowing for an electrical arc, which can ignite inside the battery cells, increasing the risk of a fire.

On Oct. 13, 2020, Hyundai Motor America (Hyundai) notified NHTSA of a safety-related defect in certain 2019-2020 Kona Electric vehicles. This filing was assigned Recall No. 20V-630. Hyundai noted that the high-voltage battery system in the subject vehicles, supplied by LG, may have been produced with internal damage to certain cells of the lithium-ion battery, increasing the risk of an electrical short circuit, which could result in a fire.

On Nov. 13, 2020, General Motors, LLC (GM) notified NHTSA of a safety-defect in all 2017-2018 and certain 2019 Chevrolet Bolt EV vehicles. The GM filing was assigned Recall No. 20V-701. GM noted that the vehicles were built with high voltage batteries, produced by LG, that may contain latent cell-level manufacturing defects, posing a risk of fire when charged to full, or nearly full, capacity. On Aug. 20, 2021, GM expanded this recall to include certain 2020-2022 Chevrolet Bolt EV and 2022 Chevrolet Bolt EUV vehicles. The GM filing was assigned Recall No. 21V-650. GM stated, "the root cause of the failure is the simultaneous presence of two rare manufacturing defects in the same battery cell."

On March 1, 2021, Hyundai notified NHTSA of a safety-related defect in certain 2019-2020 Kona Electric and 2020 Ioniq Electric vehicles. This filing was assigned Recall No. 21V-127. Hyundai stated that "the vehicles are equipped with LG produced Lithium-ion battery cells where, if the Anode (Negative) tab is folded, the battery cell could allow the Lithium plating on the Anode tab to contact the Cathode resulting in an electrical short, thereby increasing the risk of a fire while parked, charging and/or driving."

On February 11, 2022, Chrysler (FCA) notified NHTSA of a safety-related defect in certain 2017-2018 Pacifica Plug-In Hybrid Electric vehicles. This filing was assigned Recall No. 22V-077. FCA noted that Pacifica vehicles containing hybrid battery packs produced by LG were involved in twelve reports of vehicle fires. However, FCA has not yet determined whether the battery packs were defective or the root cause of the fires.

On March 16, 2022, Volkswagen (VW) notified NHTSA of a safety-related defect in certain 2021 ID4 vehicles. This filing was assigned Recall No. 22V-162. VW noted that the high voltage batteries used in the vehicles may contain insufficient soldering points and thus contain unreliable connections inside the high voltage battery. As a result of the unreliable connections, the vehicles may break down or stall while driving, leading to a crash.

The purpose of this request is to obtain a list of purchasers who bought the same or similar high voltage batteries, so they are made aware or this safety issue and are able to determine the need for any similar safety recall. It is also to request that LGES provide the requisite defect report, should it agree that it sold or distributed defective motor vehicle equipment to vehicle manufacturers. It is further to ascertain whether LGES manufactured and sold or distributed any defective equipment in the replacement market for which it may have responsibility for filing a report with NHTSA and conducting a recall campaign. Accordingly, we require the following information:

As to MBUSA recall 20V-107:

1. Provide a list of all customers that received the same or similar LGES high voltage batteries and provide their company name, line of business (i.e. vehicle manufacturer, equipment manufacturer, distributor, retailer, etc.), address, phone number, contact person, quantity sold to each, and sale date.

2. Does LGES intend to file a Part 573 Defect Information Report with NHTSA for this matter? If LGES does not agree with MBUSA that these high voltage batteries contain a safety related defect, you must explain your decision, including all supporting documents, analysis, and/or test reports.

3. Provide the following details for the LGES-produced battery cells used in the recalled vehicles as original equipment.

    a. Cell type (pouch prismatic, etc.)
    b. Cathode material
    c. Anode material
    d. Separator material
    e. Electrolyte
    f. Cell dimensions
    g. Number of anode and cathode layers
    h. Plant where the cells were manufactured

As to Hyundai recall 20V-630 and recall 21V-127:

4. Provide a list of all customers that received the same or similar LGES high voltage batteries and provide their company name, line of business (i.e. vehicle manufacturer, equipment manufacturer, distributor, retailer, etc.), address, phone number, contact person, quantity sold to each, and sale date.

5. Does LGES intend to file a Part 573 Defect Information Report with NHTSA for this matter? If LGES does not agree with Hyundai that these high voltage batteries contain a safety related defect, you must explain your decision, including all supporting documents, analysis, and/or test reports.

6. Provide the following details for the LGES-produced battery cells used in the recalled vehicles as original equipment.

    a. Cell type (pouch prismatic, etc.)
    b. Cathode material
    c. Anode material
    d. Separator material
    e. Electrolyte
    f. Cell dimensions
    g. Number of anode and cathode layers
    h. Plant where the cells were manufactured

As to GM recall 20V-701 and recall 21V-650:

7. Provide a list of all customers that received the same or similar LGES high voltage batteries and provide their company name, line of business (i.e. vehicle manufacturer, equipment manufacturer, distributor, retailer, etc.), address, phone number, contact person, quantity sold to each, and sale date.

8. Does LGES intend to file a Part 573 Defect Information Report with NHTSA for this matter? If LGES does not agree with GM that these high voltage batteries contain a safety related defect, you must explain your decision, including all supporting documents, analysis, and/or test reports.

9. Provide the following details for the LGES-produced battery cells used in the recalled vehicles as original equipment.

    a. Cell type (pouch prismatic, etc.)
    b. Cathode material
    c. Anode material
    d. Separator material
    e. Electrolyte
    f. Cell dimensions
    g. Number of anode and cathode layers
    h. Plant where the cells were manufactured

As to FCA recall 22V-077:

10. Provide a list of all customers that received the same or similar LGES high voltage batteries and provide their company name, line of business (i.e. vehicle manufacturer, equipment manufacturer, distributor, retailer, etc.), address, phone number, contact person, quantity sold to each, and sale date.

11. Does LGES intend to file a Part 573 Defect Information Report with NHTSA for this matter? If LGES does not agree with FCA that these high voltage batteries contain a safety related defect, you must explain your decision, including all supporting documents, analysis, and/or test reports.

12. Provide the following details for the LGES-produced battery cells used in the recalled vehicles as original equipment.

    a. Cell type (pouch prismatic, etc.)
    b. Cathode material
    c. Anode material
    d. Separator material
    e. Electrolyte
    f. Cell dimensions
    g. Number of anode and cathode layers
    h. Plant where the cells were manufactured

As to VW 22V-162:

13. Provide a list of all customers that received the same or similar LGES high voltage batteries and provide their company name, line of business (i.e. vehicle manufacturer, equipment manufacturer, distributor, retailer, etc.), address, phone number, contact person, quantity sold to each, and sale date.

14. Does LGES intend to file a Part 573 Defect Information Report with NHTSA for this matter? If LGES does not agree with VW that these high voltage batteries contain a safety related defect, you must explain your decision, including all supporting documents, analysis, and/or test reports.

15. Provide the following details for the LGES-produced battery cells used in the recalled vehicles as original equipment.

    a. Cell type (pouch prismatic, etc.)
    b. Cathode material
    c. Anode material
    d. Separator material
    e. Electrolyte
    f. Cell dimensions
    g. Number of anode and cathode layers
    h. Plant where the cells were manufactured

Pursuant to Federal law, a manufacturer of motor vehicle equipment must notify NHTSA within five (5) business days of when they first learn a safety defect or a noncompliance with an FMVSS exists in that equipment. In the case of a defect or noncompliance in original equipment installed in the vehicles of more than one manufacturer, notification to NHTSA must be made by the original equipment manufacturer as to the equipment item, and by each vehicle manufacturer as to those vehicles it manufactured in which the defective equipment was installed. The content of that notification is specified in 49 U.S.C. 573.6, *Defect and Noncompliance Information Report*.

This Defect and Noncompliance Information Report must be submitted electronically through the Agency's Recalls Portal. To access the portal and register as a manufacturer, go to: https://map.safercar.gov/mportal/signin and use the appropriate link on the left side of the page. Questions concerning how to register for an account and other issues associated with use of the portal may be directed to the Recalls Portal Helpdesk toll free at 1-888-719-9220 or by email at recalls.helpdesk@dot.gov. **Hard and E-mailed copies are not accepted. Please do not send them to this office.**

## Legal Authority for This Request

This letter is being sent to LGES 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. It constitutes a new request for information.

## Civil Penalties

LGES' failure to respond promptly and fully to this letter could subject LGES 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, 49 U.S.C. § 30165(a)(3), provides for civil penalties of up to $24,423 per violation per day, with a maximum of $122,106,996 for a related series of daily violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 C.F.R. § 578.6(a)(3). This includes failing to respond completely, accurately, or in a timely manner to ODI information requests.

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

If LGES' response contains any information that you claim is confidential business information, LGES must request two secure electronic file transfer links from Choon Lee at choon.lee@dot.gov. One secure electronic file transfer link is for your request for confidential treatment in compliance with 49 C.F.R. part 512 and will be directed to NHTSA's Office of the Chief Counsel. The second secure electronic file transfer link is for your non-confidential response to this letter. Do not submit any confidential business information along with your non-confidential submission. Please refer to **EQ22-001** in LGES' response to this letter and in a request for confidential treatment that LGES may submit.

If you have any questions regarding submission of a request for confidential treatment, contact Daniel Rabinovitz, Trial Attorney, Office of Chief Counsel at daniel.rabinovitz@dot.gov or (202) 366-8534.

DO NOT submit your numbered responses to this letter (or any responsive materials) through the Recalls Portal. Rather, send correspondence and materials directly to Choon Lee of my staff at choon.lee@dot.gov.

**Due Date**

LGES' response to this letter must be submitted to this office within 30 days of receipt of this letter. If LGES finds that it is unable to provide all the information requested within the time allotted, LGES must request an extension from me at (202) 366-0388 no later than five business days before the response due date. If LGES 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 LGES then has available, even if an extension has been granted.

If you have any questions concerning this matter, please contact Choon Lee at (202) 366-0388 or by e-mail at choon.lee@dot.gov.

Sincerely,

ALEXANDER PRICE ANSLEY
Digitally signed by ALEXANDER PRICE ANSLEY
Date: 2022.04.04 11:08:13 -04'00'

Alex Ansley, Chief
Recall Management Division
Office of Defects Investigation