



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EQ 22-001
Prompted by: 20V-107, 20V-630, 20V-701, 21V-127, 21V-650, 22V-077,22V-162
Date Opened: 04/01/2022
Investigator: Choon Lee
Approver: Alexander Ansley
Subject: LGES High Voltage Battery Failures

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: LG Energy Solutions
Products: LGES High Voltage Battery
Population: 138,324
Problem Description: Internal Failures in High voltage batteries produced by LG Electronics

ACTION / SUMMARY INFORMATION

Action: Open Equipment Query (EQ)

Summary:

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 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 breakdown or stall while driving leading to a crash.

The purpose of this Equipment Query is to write to LG, and other companies that might have purchased the same or similar equipment from LG, notify them of this defect in any vehicles they manufactured, and to ensure thorough safety

recalls are conducted where appropriate.