



## 23S15 – CERTAIN 2023 FORD F-150 BEV VEHICLES – VEHICLE FIRE

### **Chronology of Defect / Noncompliance Determination**

**Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.**

#### February – March 2023

On February 09, 2023, Ford's Critical Concern Review Group (CCRG) opened an investigation into a vehicle fire on a company holding lot. On February 04, 2023, the fire occurred in a 2023 model year F-150 BEV during a pre-delivery quality check while the vehicle was charging. On February 05, 2023, production of 2023 model year F-150 BEV was halted at Ford's assembly plant.

From February 06 through February 09, 2023, the Ford engineering team de-energized the high voltage battery pack to allow access to the vehicle. Using computed tomography (CT) scans of the high voltage (HV) battery arrays, Ford and the supplier independently concluded the initiation point of the fire occurred within one of the HV battery arrays.

On February 10, 2023, review of production records at the supplier and at Ford's assembly plant identified that suspect high voltage battery cells were produced at the supplier from December 14, 2022, to January 17, 2023.

Continued investigation by Ford and the supplier found that the vehicle fire started when cathode aluminum tabs contacted the anode electrode material, causing an internal short circuit when the cells were at a high state of charge. Ford and the supplier identified the processes on the supplier cell manufacturing line that led to these contact conditions. The Ford engineering team was able to replicate the contact condition through a Design of Experiments (DoE) performed at the supplier. While the CT scans and teardown parts from the suspect window confirmed the condition, parts from outside the window and from the other cell manufacturing lines did not show evidence of the contact conditions.

On March 02, 2023, further review of production records at the assembly plant found that 18 vehicles with cells built within the suspect time window were delivered to dealerships.

As of March 09, 2023, Ford is not aware of any warranty or field reports related to this condition.

On March 10, 2023, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is not aware of any reports of accident or injury related to this condition.

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March 15, 2023