

**2022MY Niro EV
High Voltage Battery Safety Plug
Basis of Safety Defect Determination 573.6(c)(6)**

July 31, 2023	Kia NA receives dealer Techline case involving a 2022MY Niro EV (Vehicle #1) with complaint of vehicle shutting off while driving; does not go into ready mode. Dealer identifies isolated melting of safety plug. Kia NA Safety Office begins monitoring issue.
August 9, 2023	Kia NA Safety Office conducts field data analysis and finds no incidents other than Vehicle #1.
September 20, 2023— September 21, 2023	Kia NA Safety Office inspects Vehicle #1 and confirms isolated melting of safety plug assembly. No issues with the high voltage battery cells or temperature sensors. Kia NA Safety Office collects parts and ships to Kia Corporation (Kia HQ) for further analysis.
October 3, 2023— November 14, 2023	<p>Kia HQ shares findings regarding potentially similar incident in Portugal involving a 2022 Niro EV.</p> <p>Kia HQ conducts testing in an effort to duplicate melting of safety plug and is unable to duplicate condition. Kia HQ informs Kia NA Safety Office of results.</p>
November 17, 2023	Kia NA Safety Office escalates matter to SEL. Kia NA Safety Office continues to monitor issue.
February 22, 2024	Kia NA receives dealer Techline case involving a 2022MY Niro EV with complaint of no start condition (Vehicle #2) [TL #16201505; KNDCC3LG7N5 [REDACTED]]. Dealer inspection identifies isolated melting of safety plug.
March 20, 2024—March 21, 2024	<p>Kia NA Safety Office engineer inspects Vehicle #2 at dealer and confirms isolated melting of safety plug.</p> <p>While at dealer, Kia NA Safety Office engineer incidentally conducts inspection of a 2022MY Niro EV (Vehicle #3) with complaint of 12V battery drain and finds safety plug partially melted. Potential high electrical resistance at the safety plug’s female to female (F-F) terminal identified. Kia NA Safety Office informs Kia HQ.</p>
March 25, 2024	Kia NA Safety Office proactively collaborates with dealers and fleet customers to expand the collection of safety plugs on Niro EV vehicles regardless of vehicle complaint.

April 1, 2024	Kia NA Safety Office and Kia HQ conduct driving and charging evaluation of two exemplar vehicles and Vehicle #3 in an attempt to duplicate melting condition. No issues found with exemplar vehicles. Vehicle #3 exhibits higher than expected temperatures at the safety plug but not reaching melting point.
April 18, 2024	In response to Kia NA Safety Office’s proactive collection of safety plugs, dealer informs Kia NA Safety Office of two 2022MY Niro EV vehicles with isolated partial melting of safety plugs. Parts are collected.
April 23, 2024—May 8, 2024	Kia NA Safety Office sends safety plug parts to Kia HQ and Safety Test & Investigation Lab (STIL) for further analysis. No root cause identified.
May 14, 2024	<p>Kia HQ works with supplier and informs Kia NA Safety Office that potential cause of issue due to supplier deviation in the manufacturing of the safety plug’s Female-Female terminal. Kia HQ identifies scope of suspected safety plug lots to specific vehicle production.</p> <p>Kia NA Safety Office identifies 3 unique VINs with isolated melting of safety plugs from field data. [(1 warranty claim and 3 Techline cases (dates of receipt 7/31/2023—3/20/2024)] and 2 additional unique VINs with isolated partial melting of safety plug during investigation (date of receipt 4/15/2024). No reports or evidence of vehicle fire.</p>
May 15, 2024	Kia NA decides to recall certain 2022MY Niro EV vehicles. No injuries, crashes, fatalities.