

Chronology of Defect / Noncompliance Determination

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

March - April

On **March 24, 2022**, CCRG opened an investigation concerning eight (8) underhood fire allegations and one (1) report of a melted battery junction box (BJB) on 2021 model year Expedition vehicles. CCRG noted that six (6) of the eight (8) fire allegations had fire origination on the passenger side rear engine compartment area, while two (2) others had unclear underhood origin. Of the eight fire allegations, six occurred while the vehicle was parked and off, and two occurred while driving. Reviewing the nine (9) reports, CCRG noted that eight (8) were owned by rental companies (multiple companies and locations).

CCRG's investigation continued throughout April. This included reviews and site visits with rental company personnel, vehicle inspections, supplier reviews, product design reviews, field and connected data analyses, among others.

May - June

As of May 12th no fire cause or origin had been identified, but the fires were believed to have originated in the passenger side rear engine compartment vicinity. CCRG was aware of sixteen (16) potentially related reports of underhood fires on 2021 MY Expedition and Navigator vehicles. Of those sixteen (16) reports, fourteen (14) are rental vehicles (multiple companies and locations) and two are retail units. Of the sixteen (16) reports, twelve (12) occurred while the vehicle was parked and off, (1) occurred while parked and on, and three (3) occurred while driving with some customers reporting a burning smell and smoke from the front passenger engine compartment. All sixteen (16) vehicles were produced between December 19, 2020 and April 20, 2021. Under further analysis, this period was found to be statistically significant.

On **May 13, 2022**, Ford's Field Review Committee reviewed the concern and approved a field action to advise owners to park their vehicles outside and away from structures while Ford's investigation continued.

At the time the Field Review Committee approved a field action, the issue was still not fully understood and Ford continued its investigation. Ford reviewed field return parts and supplier records, conducted vehicle inspections, interviewed rental and retail customers, and performed material analyses, circuit analysis, and bench testing, among others. Ford found that a high-current short could occur on certain printed circuit boards and propagate to a fire under certain circumstances. Ford found that a supplier shifted their production to a different manufacturing facility at the beginning of the COVID-19 pandemic. Printed circuit boards produced at the supplier's new facility are uniquely susceptible to a high-current short. These uniquely susceptible printed circuit boards were supplied to Ford and installed in Expedition and Navigator vehicles produced from July 2020 through August 2021. Through its review, Ford has not observed a propensity to develop a high-current short on printed circuit boards produced at other locations by this supplier or by other suppliers.

As of June 23, 2022, CCRG was aware of five (5) additional reports of underhood fires, including two (2) on vehicles produced in June-July 2021, which are outside of the original 22S36 time window. Of the 21 total fire reports to date, 18 are from rental vehicles (multiple companies and locations) and three are from retail units. Of the 21 total fire reports, fifteen (15)

occurred while the vehicle was off, one (1) while parked and running and five (5) occurred while driving.

On **June 29, 2022**, Ford's Field Review Committee reviewed the concern and approved a vehicle population expansion and service remedies for the field action.

Ford is aware of one potential injury (unspecified burn) related to this condition.

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