

Submission Date: 12/18/2018

Chronology of Defect / Noncompliance Determination for Ford Motor Company Recall #18S45

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

September 2018 – October 2018: An issue concerning two reports in Canada of 2017MY F-150 underhood fires, and one report of a 2017MY F-450 Super Duty was brought to Ford's Critical Concern Review Group (CCRG) for review. All three fires occurred while the engine block heater was plugged into a wall outlet. Inspection of these vehicles had identified the engine block heater cable's splice connector as a potential ignition source.

A warranty analysis of the F-Series engine block heater cable was conducted and identified reports of inoperative engine block heaters, household breaker or GFCI tripping, cable melting and/or smoke allegations. Analysis of warranty return parts found evidence of splice connector corrosion on some of the returned parts. Reviews of the block heater cable design and production history, connector tool and maintenance schedules, and the block heater installation were conducted, but did not identify any anomalies.

November 2018 – December 2018: A design review of Ford vehicles equipped with engine block heater cables with splice connectors was conducted. A combination of unique factors including underhood cable routing, engine compartment shielding and splice connector orientation were found to affect the potential for water intrusion and corrosion of the splice connector. A comprehensive review of all vehicle lines that utilize the same block heater cable splice connector was conducted and found the vehicles included in this action to be uniquely susceptible to water intrusion into the block heater's splice connector based on the splice connector's orientation and location.

On December 17, 2018, 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. Ford is aware of three fires in Canada where the engine block heater's splice connector is a potential source and no fires in the U.S. that have been attributed to this condition.