

**Subject:** Ford Motor Company (Ford) Recall No. **19S54** – Certain 2006-2010 Model Year Ford Fusion, Mercury Milan, Lincoln Zephyr and Lincoln MKZ Vehicles Equipped with Anti-Lock Brake Systems – Anti-Lock Brake System Hydraulic Control Unit Valve Function

### **Chronology**

December 20, 2016: NHTSA opened PE16-017 on model years 2007-2009 Ford Fusion/Mercury Milan/Lincoln MKZ regarding vehicles experiencing long brake pedal travel or extended stopping distance.

January 24, 2017: Ford's Automotive Safety Department (ASO) opened this issue in their Critical Concern Review Group (CCRG).

February 10, 2017: NHTSA and Ford held a joint drive evaluation in Dearborn, MI using Fusion vehicles fitted with an electro-mechanical system that was able to actuate one or two of the normally closed ABS valves to simulate the alleged extended pedal travel condition.

March 9, 2017: Ford submitted its response to NHTSA's PE16-017. The analysis identified the potential for an interaction between aged brake fluid and zinc plating on the normally closed ABS valve armatures which formed zinc carboxylate, potentially resulting in stuck open normally closed valves. Ford did not identify an unreasonable risk to safety due to this condition, and would continue investigating possible causal and contributory factors and would continue to analyze data, ABS assemblies, and fluid samples obtained from the field.

August 22, 2017: NHTSA and Ford held a second joint drive evaluation in Dearborn, MI.

July 20, 2018: NHTSA opened EA18-002 requesting an update to the ABS module data and analysis and expanding the inquiry to include all 2006-2012 Ford Fusion/Mercury Milan/Lincoln Zephyr and MKZ vehicles.

September 28, 2018: Ford submitted its response to EA18-002. Ford determined that there had not been any substantial change in the field data or the technical assessment since Ford's response to PE16-017. Ford's engineering analysis showed that while customers driving vehicles with ABS systems that include zinc-plated valves may experience a longer brake pedal travel, the condition does not result in a loss of braking function or loss of vehicle control, and the vehicle can be safely brought to a controlled stop.

October 2018 – November 2019: Ford continued to monitor field data and conduct additional engineering analysis. Ford continued to work with NHTSA to investigate and engaged in ongoing discussion with NHTSA.

At a meeting in November with NHTSA, the agency's perspectives about the nature of the failure were shared with Ford and the agency recommended Ford conduct a safety recall.

**December 11, 2019:** Ford's Field Review Committee reviewed the concern and approved this field action.

Ford is aware of 15 reports of accidents and 2 injuries that may be related to the ABS stuck valve issue.