



April 25, 2019

Chronology of Defect / Noncompliance Determination

573.6 (c) (6) (7)

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision:

On December 12, 2018, a GM quality engineer submitted a report to GM's Speak Up For Safety program after inspecting an engine-block heater recovered from a 2018 model year GMC Sierra 3500 and returned to GM through GM's warranty-part return program. The engine-block heater was leaking coolant, and the engineer observed thermal damage at the connection between the heater and the block-heater power cable.

GM's initial analysis identified five potential fires involving engine-block heaters in 2018 model year GMC Sierra 2500/3500 vehicles. Based on this data, GM opened a formal product investigation on February 12, 2019.

During its investigation, GM analyzed field data, conducted dealer interviews, inspected returned block heaters and block-heater cables, and performed various tests, including tear-downs and x-ray analysis of warranty-return block heaters. Through this testing and analysis, GM determined that the potential cause of engine-block heater related fires in the investigated vehicles is a short-circuit condition in the block heater or power cable, and that a short circuit could occur if: (i) a block-heater coolant leak develops and the coolant contacts the block-heater cable terminals while the cable is plugged in to an energy source; or (ii) the cable itself is chafed or damaged due to improper routing, use, or storage.

As of April 17, 2019, GM had received approximately 19 claims alleging that the engine-block heater or block-heater cord caused a fire in 2017-2019 model year Chevrolet Silverado and GMC Sierra 2500/3500 vehicles equipped with the Duramax diesel 6.6 liter engine. Based on this data, on April 18, 2019, GM's Safety Field Action Decision Authority (SFADA) decided to conduct a safety recall on certain (i) 2017-2019 model year Chevrolet Silverado and GMC Sierra 2500/3500 vehicles equipped with the Duramax diesel 6.6 liter engine and the optional block-heater power cable; and (ii) 2019 Chevrolet Silverado 4500/5500/6500 vehicles equipped with the same engine-block heater and optional power cable.