Chronology of Defect / Noncompliance Determination

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision: (2000)

On March 22, 2022, Isuzu North America Corporation's (INAC) production team was informed by a staff member of Builtmore, the Charlotte, Michigan factory that assembles current Isuzu F-series trucks, that a fuel leak had been detected on several trucks after a line worker primed the fuel pump. (The F-series is comprised exclusively of diesel trucks.) Priming the fuel pump is a step toward the end of the production process necessary to facilitate fuel flow to the engine and to purge air from the fuel line.

INAC QA, together with Isuzu Motors Limited (IML) and Isuzu Technical Center of America, Inc. (ITCA) (collectively, Isuzu), promptly launched an investigation; and a manufacturing plant Stop Ship was instituted as to completed vehicles on March 28, 2022. At the time this manufacturing plant Stop Ship was instituted, no vehicles produced after January 31, 2022 had been shipped from the plant to dealers, body builders, etc.

Isuzu determined that the wrong size quick connector fitting had been spec'd for these trucks. The fitting for the quick connector used to connect the fuel suction hose to the fuel inlet pipe of the engine was spec'd as Ø12.6 mm when it should have been Ø11.8 mm. On April 18, 2022 a running change in production was implemented to use the correct size fitting for the quick connector. Vehicles assembled between March 28 and April 18 did not leave Isuzu's control (and were not shipped) until after the incorrect fitting was replaced with a correct one. However, Isuzu continued its investigation into the consequences of the error and specifically whether the issue presented an unreasonable risk to motor vehicle safety.

Isuzu's investigation indicated that because the improperly sized fitting was on the suction side of the fuel supply system, actual diesel fuel leakage could occur during the fuel pump priming process in the factory, or during a similar process that occurs when the fuel system requires service. Isuzu believes it is unlikely that an ignition source sufficient to ignite diesel fuel would be present in the factory or service center. Isuzu also concluded that diesel fuel leakage is unlikely when the vehicle is running, because the fuel suction hose is not pressurized. Isuzu notes that the exhaust pipe is on the other side of the engine from the fuel suction hose. For these two reasons, Isuzu concluded that ignition resulting from fuel leakage while the vehicle is running is unlikely. However, Isuzu cannot completely rule out the possibility that diesel fuel leakage could occur away from a factory or service center.

Isuzu also ran some test drives of trucks containing the wrong quick connector fitting to determine if there were any consequences on engine operation, such as stalling. While Isuzu's tests did not demonstrate any stalling events, Isuzu cannot completely rule out the possibility that air pockets in the fuel suction line could compromise the flow of fuel to the engine and potentially result in an engine stall.

Isuzu has received no warranty claims related to this issue, nor is it aware of any crashes or injuries associated with this issue.

On May 13, 2022, and in an abundance of caution, Isuzu made a determination to conduct a safety recall to address this issue in the affected vehicles in the field (the majority of which are believed still to be in the possession of Isuzu dealers).