DET-22-065 ISUZU CAMPAIGN: V2202

## **Chronology of Defect / Noncompliance Determination**

573.6 (c) (6) or (7)

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

On July 7, 2021, Isuzu received the first field case reporting zero oil pressure in the engine when the Isuzu diagnostic scan tool displayed 126 psi.

Isuzu North America Corporation (INAC) QA, together with Isuzu Motors Limited (IML) and Isuzu Technical Center of America, Inc. (ITCA) (collectively, Isuzu), promptly launched an investigation in August 2021.

In September 2021, Isuzu determined that an erroneous engineering drawing caused the supplier of the harness containing the engine oil pressure (EOP) sensor connector to reverse Pins 2 and 3 of that connector when assembling that harness. Isuzu's supplier reworked existing stock of harnesses by switching connector pins 2 and 3.

In October 2021, Isuzu approved a revised harness engineering drawing to correct the error.

In November 2021, Isuzu implemented utilization of the reworked harnesses on the production line of new trucks.

On January 11, 2022, Isuzu implemented utilization of correctly assembled harnesses supplied from the harness manufacturer. These harnesses had the correct harness-to-sensor connection on the E-104 connector.

From August 2021 through February 2022, Isuzu kept a close eye on the field experience of the vehicles that were produced with the improperly positioned EOP sensor Pins. Data was collected and then assembled on February 24, 2022 and discussed on March 15, 2022. As of February 24, 2022, there were 33 unique reports (that is, warranty claims and field reports that did not involve the same vehicle and the same repair) involving oil pressure concerns. Of the 33 unique reports, 16 involved customer complaints of "Check Engine Light (CEL) on" and engine noise, another 6 were complaints of "no start," 4 indicated the engine ran rough, loss of oil pressure or no power, 4 claimed the engine had seized and 3 were complaints of an engine stall. At that time (and still today), Isuzu was (and remains) unaware of any crashes, property damage, injuries or deaths alleged to have resulted from this oil pressure sensor concern. Isuzu decided to continue its investigation into this issue and specifically on the question of whether this concern represented an unreasonable risk to motor vehicle safety.

From that point through the end of May, Isuzu continued to evaluate the field experience of the vehicles and the question of whether a field action was appropriate and necessary. On May 31, Isuzu put together the field data gathered to that point and then discussed the question – again including whether defect – the failure of the affected vehicles' oil pressure sensor to sense the vehicles' actual oil pressure and thus the failure of the EOP warning light to illuminate irrespective of the actual oil pressure in the vehicles – constituted an unreasonable risk to motor vehicle safety. As of May 31, 2022, there were 58 unique reports (that is, warranty claims and field reports that did not involve the same vehicle and the same repair) involving oil pressure concerns). Of the 58 unique reports (including 44 warranty claims and 53 TALs (field reports)), 32 (more than half) involved customer complaints of "Check Engine Light (CEL) on" and engine noise, 13 were complaints of "no start," 3 involved miscellaneous claims such as the engine ran rough, loss of oil pressure or no power, 5 claimed the engine had seized and 5 were complaints of an engine stall. Based on this review, a decision was made on June 10, 2022 to conduct a safety-related defect recall. It connection with this review in early June, Isuzu determined that the failure of the EOP warning light to illuminate irrespective of the actual oil pressure level in the affected vehicles may also be a noncompliance with FMVSS 101.

As stated above, Isuzu is not aware of any crashes, property damage, injuries or deaths associated with this issue.