Subject: Ford Motor Company (Ford) Recall No. 19S07 – Certain 2011-2013 Model Year Ford F-150 Vehicles with 6-speed Automatic Transmission – Transmission Shift Issues

<u>Chronology</u>

April 2016: Ford's Field Review Committee (FRC) approved FSA 16S19 on certain 2011-2012 MY F-150, and 2012-2013 MY Expedition, Navigator, and Mustang vehicles equipped with 6R80 transmissions for sudden (un-commanded) downshifts related to intermittent failures of the Output Shaft Speed (OSS) Sensor. The investigation had identified that an equipment maintenance issue at the leadframe supplier could lead to a solder joint fatigue crack in the OSS Sensor circuit on leadframes produced between August 4, 2011, and December 1, 2011. Vehicles that were produced with one of these suspect OSS sensors were included in this recall.

May 2016 - December 2017: Ford continued to monitor reports for vehicles with 6R80 transmissions outside of the 16S19 population. Though reports of transmission driveability concerns caused by an intermittent OSS signal were identified, investigation into these reports did not identify a pattern or trend pertaining to any particular cause. Further, the rate of reports continued to be low. On all vehicles with the 6R80 transmission, the overall rate of reports relating to sudden downshift that resulted in a wheel slip was very low. By design, the complete loss of the OSS signal will set a fault code and result in either 3rd or 5th gear operation, depending on the gear position when the fault occurred. This would not be expected to result in wheel slip. Analysis continued to find that nearly 98% of reports did not result in a downshift into 1st gear with wheel slip. In the small number of cases where wheel slip was reported, drivers were normally able to maintain vehicle control, safely stop the vehicle, and immediately resume driving.

January – July, 2018: On January 16, 2018, NHTSA opened RQ17-010 on this subject for Model Year 2011-2013 F-150, Expedition, and Navigator that were not included in 16S19. In its March 9, 2018 response, Ford stated that the overall rate of sudden downshift reports resulting in wheel slip continued to be low compared to the recall population, considering the additional time in service, that the vast majority of reports did not allege any control loss, and that Ford would continue to monitor this subject in the field. On June 13, 2018, Transport Canada opened Engineering Analysis 3280-09-26 for Model Year 2011-2013 F150, Expedition, and Navigator vehicles not included in 16S19.

July - December 2018: Ford continued to obtain and analyze parts from complaint vehicles, and found no attributable pattern of intermittent OSS signal loss in the population outside of 16S19. The overall rate of reports specifically relating to unintended downshift that resulted in a wheel slip on the non-recalled vehicles continued to be low.

Ford reviewed this subject with Transport Canada personnel on November 27, 2018, and with NHTSA personnel on December 12, 2018 and discussed Ford's recommendations to address ongoing customer concerns. Based on feedback received in the weeks following these discussions, this issue was taken to Ford's Field Review Committee for review.

Ford is aware of five reports of accidents, including one report of "whiplash" potentially related to this condition on this population of vehicles.

On February 4, 2019, Ford's Field Review Committee reviewed the concern and approved a field action.