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Steve M. Kenner, Global Director Automotive Safety Office Sustainability, Environment & Safety Engineering

April 30, 2012

Ms. Nancy Lewis Associate Administrator for Enforcement National Highway Traffic Safety Administration 1200 New Jersey Avenue SE, Room W45-306 Washington, DC 20590

Dear Ms. Lewis:

Subject: Ford Motor Company (Ford) Recall No. 12C23 - Certain 2011 and 2012 Model Year F-150,

and certain 2012 Expedition and Navigator, and certain 2012 and 2013 Model Year Mustang

vehicles for transmission "PRNDL" illumination and backup lamp activation

Summary

- <u>Ford Action</u> Ford is conducting a voluntary compliance recall involving certain 2011 and 2012 model year F-150, and certain 2012 model year Expedition and Navigator, and certain 2012 and 2013 model year Mustang vehicles with automatic transmissions to inspect and/or replace the Transmission Range Sensor (TRS) assembly.
- <u>Number of Vehicles Involved</u> Approximately 10,500 vehicles in the United States and federalized territories are potentially affected.
- <u>Description</u> Ford's Automatic Transmission Operations shipped transmissions that may have a TRS that was calibrated out of specification for reverse gear. Under a rare set of circumstances, when the shift lever is placed in the "R" position and the transmission is in functional reverse, and if the TRS position is significantly out of tolerance, electronic signals to the Electronic PRNDL (E-PRNDL) for "R" illumination and/or for backup lamp activation may not be provided. Section S.3.1.4.1 of FMVSS 102 requires "identification of shift positions, including the positions in relation to each other and the position selected, shall be displayed in view of the driver whenever any of the following conditions exist: a) The ignition is in a position where the transmission can be shifted; or (b) The transmission is not in park." The 2012 model year Mustang vehicles are not equipped with an E-PRNDL and fully meet FMVSS 102. Section S.7.6.5 (Table 1.-a) of FMVSS 108 requires that the backup lamps: "Must be activated when the ignition switch is energized and reverse gear is engaged." As of April 12, 2012, there are no known reports of accidents or injuries attributed to this condition.
- <u>Service Program</u> Owners will be notified by mail and instructed to take their vehicle(s) to a Ford or Lincoln dealer to have their vehicle's TRS assembly inspected and/or replaced. Ford will notify dealers on May 1, 2012, to stop demonstrating or delivering the affected vehicles.

The detailed information required by the applicable portions of 49 CFR Part 573 - Defect and Non-Compliance Information Report is attached.

Sincerely,

Steven M. Kenner Attachment



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49 CFR PART 573 - NON-COMPLIANCE INFORMATION REPORT 12C23- CERTAIN 2011 AND 2012 MODEL YEAR F-150, AND CERTAIN 2012 MODEL YEAR EXPEDITION AND NAVIGATOR, AND CERTAIN 2012 AND 2013 MUSTANG VEHICLES FOR TRANSMISSION "PRNDL" ILLUMINATION AND BACKUP LAMP ACTIVATION

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Defect and Non-Compliance Reports, Ford Motor Company (Ford) submits the following information concerning a potential non-compliance to the requirements of Section S.3.1.4.1 of FMVSS 102 and Section S.7.6.5 (Table 1.-a) of FMVSS 108 for certain 2011 and 2012 model year F-150, and certain 2012 model year Expedition and Navigator, and certain 2012 and 2013 model year Mustang vehicles.

573.6 (c) (2) - Potentially Affected Vehicles

Certain 2011 and 2012 F-150 models built from October 13, 2011, through February 27, 2012, at the Dearborn Truck Plant (DTP) and the Kansas City Assembly Plant (KCAP). Certain 2012 Expedition and Navigator models built from October 19, 2011, through December 17, 2011, at the Kentucky Truck Assembly Plant (KTP) and certain 2012 and 2013 Mustang models built from October 17, 2011, through January 9, 2012, at the Automotive Alliance Plant (AAI).

Because these vehicles are not produced in VIN order, information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

573.6 (c) (3) - Estimated Population of Vehicles Potentially Affected

Approximately 10,500 vehicles in the United States and federalized territories are potentially affected.

573.6 (c) (4) - Estimated Percentage of Affected Vehicles with the Condition

Unknown.

573.6 (c) (5) - Description of Non-Compliance

Ford's Automatic Transmission Operations shipped transmissions that may have a TRS that was calibrated out of specification for reverse gear. Under a rare set of circumstances, when the shift lever is placed in the "R" position and the transmission is in functional reverse, and if the TRS position is significantly out of tolerance, electronic signals to the Electronic PRNDL (E-PRNDL) for "R" illumination and/or for backup lamp activation may not be provided. Section S.3.1.4.1 of FMVSS 102 requires "identification of shift positions, including the positions in relation to each other and the position selected, shall be displayed in view of the driver whenever any of the following conditions exist: a) The ignition is in a position where the transmission can be shifted; or (b) The transmission is not in park." The 2012 model year Mustang vehicles are not equipped with an E-PRNDL and fully meet FMVSS 102. Section S.7.6.5 (Table 1.-a) of FMVSS 108 requires that the backup lamps: "Must be activated when the ignition switch is energized and reverse gear is engaged." As of April 12, 2012, there are no known reports of accidents or injuries attributed to this condition.

573.6 (c) (7) - Basis of Non-Compliance Determination

In November 2011 Ford began receiving a small number of warranty reports from customers experiencing intermittent inability to engage the transmission in reverse gear. A request for returned warranty parts was initiated and during the months of January through March 2012 warranty parts were reviewed by Ford Transmission Engineering. The returned parts exhibited an out of specification condition for reverse gear engagement, which had been the subject of a vehicle stop ship on October 28, 2011. Further investigation of additional returned parts from vehicles exhibiting

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difficulty to shift into reverse were obtained and dimensionally analyzed. Components exhibiting the largest out of specification condition were then installed in test vehicles for evaluation. A large number of previously manufactured TRS assemblies with various production dates were also studied for dimensional trends. Computer simulations utilizing actual part return dimensions, i.e., Monte Carlo, of shifter system component variability were conducted. These simulations indicated that TRS assemblies that were significantly out of specification, in combination with other shifter system components at various levels of allowable tolerance, may not provide an electronic signal. Further analysis indicted that, if the shift lever is positioned in certain sequences and the transmission obtains functional reverse with a significantly out of specification TRS, an electronic signal may not be provided. This electronic signal to the E-PRNDL is required for illumination of the "R" on F-150, Expedition and Navigator, and Mustang vehicles.

Ford's Technical Review Group reviewed this item on April 13, 2012, and recommended review by the Field Review Committee.

On April 23, 2012, the Field Review Committee reviewed the issue and approved a field action.

573.6 (c) (8) - Service Program

Owners will be notified by mail and instructed to take their vehicle(s) to a Ford or Lincoln dealer to inspect and/or replace the TRS. Ford will notify dealers on May 1, 2012, to stop demonstrating or delivering the affected vehicles. There will be no charge to owners for this service.

Mailing of owner notification letters will begin on June 25, 2012, and be completed on June 29, 2012. Notification to dealers will occur on May 1, 2012.

In accordance with Part 573.13 (d)(1), Ford is excluding reimbursement for costs incurred by owners for repair of this problem because Ford's original warranty program would provide for a free repair for this concern for customers.

573.6 (c) (10) - Press statement and Dealer/Owner Letters

National media attention is likely as with most Ford recalls when posted to NHTSA's safercar.gov website. Ford will provide public comments when requested. A news release will not be issued. A copy of the notification letters to dealers and owners from Ford will be forwarded to the agency when available.

573.6 (c) (11) - Recall Number

Ford has assigned recall number 12C23 to this action.