

**RECEIVED**

By Recall Management Division at 11:25 am, May 29, 2014

14V-286  
(5 pages)



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

**Fairlane Plaza South, Suite 400**  
330 Town Center Drive  
Dearborn, MI 48126-2738

May 27, 2014

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) 2011-2013 Model Year Ford Explorer Safety Recall #14S06

In accordance with the requirements of 49 CFR Part 573 Defect and Non-compliance Information Reports, please find the applicable information regarding Ford Motor Company's voluntary safety recall #14S06.

Sincerely,

A handwritten signature in blue ink that reads "S. M. Kenner for".

Steven M. Kenner

Attachment

49 CFR Part 573 – DEFECT INFORMATION REPORT  
2011-2013 MODEL YEAR FORD EXPLORER  
ELECTRIC POWER STEERING SAFETY RECALL #14S06

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Defect and Non-Compliance Reports, Ford Motor Company submits the following information concerning a safety recall action that it is voluntarily initiating.

573.6 (c) (2) – Potentially Affected Vehicles

Vehicles potentially affected are certain 2011-2013 model year Ford Explorer vehicles built at the Chicago Assembly Plant from May 17, 2010, to February 28, 2012.

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), by clicking on the "Safety Recalls" link at <http://www.ford.com>, 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.

The information for the supplier of the subject Electric Power Steering (EPS) Gear is provided below.

Electric Power Steering Gear:

Supplier Name: TRW Automotive  
Supplier Address: 4585 W. 26 Mile Road, Washington, MI 48094  
Supplier Phone Number: (586) 232-8559  
Point of Contact at Supplier: Frank Klose  
Country of Origin for the component: USA

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

Approximately 179,027 vehicles in the United States and federalized territories are potentially affected.

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

Unknown.

573.6 (c) (5) – Description of the Defect

In some of the affected vehicles, an intermittent electrical connection in the electric power steering gear can lead to a loss of the motor position sensor signal, resulting in a fault code that removes power steering assist. In the event of a loss of power steering assist, the steering system will default to manual steering mode, the mechanical linkage between the steering wheel and the road is maintained at all times, and drivers are clearly informed of a change in steering system status via an audible chime and the display of a power steering assist fault message in the instrument cluster. Loss of power steering assist would require higher steering effort, especially at lower vehicle speeds, which may result in an increased risk of a crash.

### 573.6 (c) (6) – Chronology of Events

Summer, 2011 – Ford and TRW investigated quality issues with the EPS system due to an elevated rate of warranty reports of gear replacements.

September – November, 2011 – TRW implemented corrective actions for quality issues pertaining to ribbon cable conformal coat contamination and ribbon cable pin misalignment within the EPS motor.

March 6, 2012 – Transport Canada (TC) submitted an Information Request to Ford concerning an allegation of loss of power steering assist on a 2011 model year Ford Explorer. Ford responded to TC's Information Request on April 5, 2012.

Ford indicated in its response that prior engineering analysis on steering gears returned from the field for complaints of loss of power steering assist identified that a majority of the gears had an intermittent electrical connection that led to a loss of the motor position sensor signal. This fault condition had been previously determined to have been caused by either ribbon cable conformal coat contamination or ribbon cable pin misalignment.

Ford also indicated in its response that, in the event of a loss of power steering assist, the mechanical linkage between the steering wheel and the road is maintained at all times. The steering system will default to manual steering mode, allowing the vehicle to be steered in a safe and controlled manner, and drivers are clearly informed of a change in steering system status via an audible chime and the display of a power steering assist fault message in the instrument cluster.

May 23, 2012 – Transport Canada advised that they had elevated their investigation to Level II status.

June 19, 2012 – The National Highway Traffic Safety Administration (NHTSA) opened a Preliminary Evaluation (PE12-017) concerning allegations of loss of power steering assist on 2011 model year Explorer vehicles. NHTSA submitted an Information Request to Ford on July 12, 2012. Ford responded to NHTSA's Information Request on August 29, 2012.

Ford indicated in its response that prior engineering analysis on steering gears returned from the field for complaints of loss of power steering assist identified that a majority of the gears had an intermittent electrical connection that led to a loss of the motor position sensor signal. This fault condition was determined to have been caused by either ribbon cable conformal coat contamination or ribbon cable pin misalignment.

Ford also indicated in its response that, in the event of a loss of power steering assist, the mechanical linkage between the steering wheel and the road is maintained at all times. The steering system will default to manual steering mode, allowing the vehicle to be steered in a safe and controlled manner, and drivers are clearly informed of a change in steering system status via an audible chime and the display of a power steering assist fault message in the instrument cluster.

June 28, 2012 – TC submitted a follow-up Information Request to Ford concerning loss of power steering assist on 2011 and 2012 model year Ford Explorers. Ford responded to TC's Information Request on August 17, 2012.

August 2012 – Transport Canada elevated their investigation to Level III status.

October 19, 2012 – Ford responded to Transport Canada's September 18, 2012 request for information regarding certain aspects of the EPS Design Failure Mode and Effect Analysis.

January 14, 2013 – Ford provided a data update to TC in response to their December 6, 2012 request for updated information.

April 25, 2013 – Transport Canada requested test data to support a peer review of the performance of vehicle steering systems and forces generated during ECE Regulation No. 79 for certain Ford vehicles. Ford responded to TC's request on June 5, 2013

June 11, 2013 – Ford provided a data update to NHTSA in response to their May 21, 2013 request for updated information.

October 1, 2013 – Transport Canada advised that they had elevated their investigation to Level IV status.

January 30, 2014 – Ford met with Transport Canada via WebEx to review preliminary data collected by Transport Canada during a simulated loss of power steering assist drive evaluation performed by non-professional drivers. While this evaluation was conducted such that drivers did not anticipate this loss of power steering assist during their drive evaluation, it appeared to Ford that all drivers nevertheless were able to maintain control of their vehicle. Ford and Transport Canada officials continued to have ongoing dialogue regarding the results of their study.

March 19, 2014 – Ford provided a data update to TC in response to their February 14, 2014 request for updated information.

April 8, 2014 – Ford met with NHTSA officials at the Transportation Research Center in East Liberty, Ohio. During this visit, the Agency was given the opportunity to drive an Explorer equipped with an EPS system that could be manually triggered to simulate loss of power steering assist due to a motor position sensor encoder fault.

May 2, 2014 – Ford provided a data update to NHTSA in response to their April 8, 2014 request for updated information.

May 2014 – Ford and NHTSA had ongoing discussions regarding their investigation into reports of loss of power steering assist while driving in the subject vehicles. Ford understood that at that time NHTSA was recommending that a safety field action be undertaken for this issue.

May 19, 2014 – Accordingly, Ford's Field Review Committee reviewed their position and approved a field action in order to address their concern with these vehicles.

As of April 8, 2014, Ford is aware of 15 low speed accident allegations and two minor injury allegations pertaining to this subject.

#### 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 have the Power Steering Control Module (PSCM) software updated. The updated PSCM

software will provide steering assist for the remainder of the drive cycle if a motor position sensor encoder fault occurs. Additionally, the system will provide audible and visual warning to the driver that a motor position sensor encoder fault is detected. There will be no charge to owners for this service.

Mailing of owner notification letters is expected to be completed by July 25, 2014. Notification to dealers is planned to occur on May 29, 2014.

Ford's general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall was provided to the agency on February 20, 2013.

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 safecar.gov website. Ford will provide public comments when requested. A news release will not be issued.

Ford will forward a copy of the notification letters to dealers and owners to the agency when available.

573.6 (c) (11) – Recall Number

Ford has assigned recall number 14S06 to this action.

573.13 (c) (2) – Ending Date for Reimbursement Eligibility

The ending date for reimbursement eligibility for the cost of remedies paid for by vehicle owners per Ford's general reimbursement plan is August 8, 2014.

###