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November 25, 2013

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) 2013 Model Year Ford Escape Safety Recall #13S12

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 #13S12.

Sincerely,

*for* 

Steven M. Kenner  
Attachment

49 CFR PART 573 – DEFECT INFORMATION REPORT  
2013 MODEL YEAR FORD ESCAPE 1.6L SAFETY RECALL #13S12

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 2013 model year Ford Escape vehicles equipped with 1.6L engines built at Ford's Louisville Assembly Plant (LAP) from October 5, 2011, to June 2, 2013.

Additionally, those vehicles built from October 5, 2011, to July 11, 2012, and repaired under Ford recall 12S35 (NHTSA #12V-336) will have an incremental inspection of the engine compartment fuel line.

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 139,917 2013 model year Ford Escape vehicles in the United States and federalized territories are potentially affected.

Approximately 9,469 of these vehicles that were repaired under Ford recall 12S35 (NHTSA #12V-336) will have an incremental inspection of the engine compartment fuel line.

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

Unknown.

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

Certain 2013 model year Ford Escape vehicles equipped with 1.6L engines may experience underhood fires due to localized overheating of the engine cylinder head leading to cracks causing oil leaks. Engine oil that comes into contact with a hot engine surface could potentially result in an engine compartment fire.

As of November 18, 2013, Ford is aware of 12 field reports of fires in the United States and one in Canada on vehicles with this condition.

In addition, Ford has received warranty reports of fuel odor or leaks related to engine compartment fuel lines on 2013 model year Ford Escape vehicles that were previously remedied under Ford recall 12S35 (NHTSA #12V-336). Subsequent investigation by Ford identified that some engine compartment fuel lines may have been installed incorrectly by service technicians, creating a chafe condition. Over a period of time, the chafe condition has resulted in reports of fuel odor and leaks, but there have been no reports of fires due to this

condition. A fuel leak in the presence of an ignition source could potentially result in an engine compartment fire.

Neither of these issues has resulted in any reports of injury.

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

In July 2012, Ford issued recall 12S35 (NHTSA #12V-336) to address engine compartment fuel lines that may have been potentially damaged during its manufacture.

In December 2012, Ford issued recall 12S41 (NHTSA #12V-551) to address engine compartment fires in 2013 model year Ford Escape vehicles equipped with 1.6L engines.

Ford analyzed each subsequent warranty claim, field report, or claim alleging an engine compartment fire, of any magnitude, for these vehicles. Ford conducted in depth review of engines and vehicles reacquired from customers to analyze the potential causes of the fires.

Beginning in late August through October, Ford began to receive a series of engine compartment fire reports, indicating a potential trend. An investigation of each incident was immediately initiated. A teardown of engines returned from the field indicated engine overheating and cracked cylinder heads that allowed oil to leak, and the investigation began to focus on the potential for an overheat condition to cause the cylinder head to crack prior to being damaged in the fire.

As part of the investigation, vehicles and engines were tested under severe load and temperature conditions that were considered most likely to create a potential for overheating; however, this severe testing was unable to duplicate a cylinder head crack. Review of the conditions at the time of the fires also did not suggest severe loading or high ambient temperatures were involved.

Subsequently, CAE modeling was used to evaluate what unique environmental and engine operating conditions might lead to cylinder head cracking in this location. The modeling predicted that under certain operating conditions, localized overheating of the cylinder head could cause sufficient stresses to crack the head in the location found on field returns. Additional testing was conducted through October in an attempt to replicate the field events and correlate the CAE model, but was not successful.

In late October/early November, additional engines were returned and analyzed, and additional cases of cylinder head cracking were identified. In November, an overheat crack was reproduced on an engine dynamometer test.

During this engineering investigation, Ford identified warranty reports of fuel odor or leaks related to engine compartment fuel lines on 2013 model year Ford Escape vehicles that were previously remedied under Ford recall 12S35 (NHTSA #12V-336). Subsequent investigation by Ford identified that some engine compartment fuel lines may have been installed incorrectly by service technicians, creating a chafe condition. Ford's analysis indicated that, over a period of time, the chafe condition has resulted in reports of fuel odor and leaks, but there have been no reports of fires, accidents or injuries attributed to this condition.

On November 18, 2013, Ford's Field Review Committee reviewed the data and determined that a safety defect exists, and that a voluntary safety recall should be conducted.

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 enhancements to the engine shielding, cooling and control systems made to their vehicles and a subset of the population will also have the engine compartment fuel line inspected and replaced as required. There will be no charge to owners for this service.

Initial notification to dealers will occur on November 25, 2013. Mailing of owner notification letters will be completed by January 23, 2014.

In accordance with Part 573.13(d)(1), Ford is excluding reimbursement for costs incurred by owners for repair of this concern 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 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 13S12 to this action.

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