ATTACHMENT
**September 28, 2018**

FORD MOTOR COMPANY (FORD) PARTIAL RESPONSE TO PE18-007

Ford's response to this Preliminary Evaluation information request was prepared pursuant to a diligent search for the information requested. While we have employed our best efforts to provide responsive information, the breadth of the Agency's request and the requirement that information be provided within an eight week time frame makes this a difficult task. We nevertheless have made substantial effort to provide thorough and accurate information, and we would be pleased to meet with Agency personnel to discuss any aspect of this Preliminary Evaluation.

The scope of Ford's investigation conducted to locate responsive information focused on Ford employees most likely to be knowledgeable about the subject matter of this inquiry and on review of Ford files in which responsive information ordinarily would be expected to be found and to which Ford ordinarily would refer. Ford notes that although electronic information was included within the scope of its search, Ford has not attempted to retrieve from computer storage electronic files that were overwritten or deleted. As the Agency is aware, such files generally are unavailable to the computer user even if they still exist and are retrievable through expert means. To the extent that the Agency's definition of Ford includes suppliers, contractors, and affiliated enterprises for which Ford does not exercise day-to-day operational control, we note that information belonging to such entities ordinarily is not in Ford's possession, custody or control.

Ford has construed this request as pertaining to vehicles manufactured for sale in the United States, its protectorates, and territories.

Ford notes that some of the information being produced pursuant to this inquiry may contain personal information such as customer names, addresses, telephone numbers, and complete Vehicle Identification Numbers (VINs). Ford is producing such personal information in an unredacted form to facilitate the Agency's investigation with the understanding that the Agency will not make such personal information available to the public under FOIA Exemption 6, 5 U.S.C. 552(b)(6).

Answers to your specific questions are set forth below. As requested, after each numeric designation, we have set forth verbatim the request for information, followed by our response. Unless otherwise stated, Ford has undertaken to provide responsive documents dated up to and including August 2, 2018, the date of your inquiry. Ford has searched within the following offices for responsive documents: Sustainability, Environment and Safety Engineering, Ford Customer Service Division, Global Core Engineering, Office of the General Counsel and North American Product Development.

Request 1

1. State, by model and model year, the number of subject vehicles and peer vehicles Ford has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Ford, state the following:
   a. Vehicle identification number (VIN);
   b. Make;
   c. Model;
   d. Model Year;

e. Engine Type, ex: 1.6L GTDI, 2.0L GTDI, 2.5L DOHC;
f. Date of manufacture;
g. Date warranty coverage commenced;
h. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease);
i. Date recall 17V209 was completed;
j. Date recall 15V005 was completed;
k. Date recall 14V525 was completed;
l. Date recall 13V584 was completed;
m. Date recall 13V583 was completed;
n. Date recall 12V551 was completed;
o. Date recall 12V431 was completed; and
p. Date recall 12V336 was completed.

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA."

Answer

As agreed to by the Agency in an email on August 21, 2018, Ford is providing information in response to all requests except for (j) and (k) above.

Ford records indicate that the approximate total number subject and peer vehicles sold in the United States (the 50 states and the District of Columbia), protectorates, and territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands) is **138,323** and **540,943** respectively. See the table below for a breakdown by engine type and model year.

| Model Year | Engine Type | | |
|---|---|---|---|
| | 1.6L | 2.0L | 2.5L |
| 2013 | 138,323 | 140,823 | 30,506 |
| 2014 | 178,669 | 144,919 | 46,026 |

The requested data is provided in **Appendix A**.

Request 6

Describe in detail the search methods and search criteria used by Ford to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble codes, part numbers and any other pertinent parameters used.

Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

State, by make and model year, the terms of the new vehicle warranty coverage offered by Ford on the subject and peer vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Ford offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

Answer

Detailed descriptions of the search criteria, including all pertinent parameters, used to identify the claims provided in response to **Request 5** are described in **Appendix B**.

For 2013 – 2014 model year Ford Escape vehicles, the New Vehicle Limited Warranty, Bumper-to-Bumper Coverage begins at the warranty start date and lasts for three years or 36,000 miles, whichever occurs first. Optional Extended Service Plans (ESPs) are available to cover various vehicle systems, time in service, and mileage increments. The details of the various plans are provided in **Appendix D**. As of the date of the information request, **76,335** new vehicle ESP policies had been purchased on 2013 model year Ford Escape vehicles with 1.6L engines, and **30,587** of these have expired. For peer vehicles, see the table below.

| Peer Vehicle ESPs Only | | | | | | |
|---|---|---|---|---|---|---|
| | 1.6L | | 2.0L | | 2.5L | |
| | Active | Expired | Active | Expired | Active | Expired |
| 2013 | | | 56,215 | 36,212 | 7,314 | 5,424 |
| 2014 | 67,092 | 26,799 | 60,460 | 21,148 | 14,385 | 4,198 |

Request 7

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject and peer vehicles, that Ford has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Ford is planning to issue within the next 120 days.

Answer

For purposes of identifying communications to dealers, zone offices, or field offices pertaining, at least in part, to steering wheel bolt loose, Ford has reviewed the following FCSD databases and files: The On-Line Automotive Service Information System (OASIS) containing Technical Service Bulletins (TSBs), Special Service Messages (SSMs) and General Service Bulletins (GSBs); Internal Service Messages (ISMs) contained in CQIS; and Field Review Committee (FRC) files. We assume this request does not seek information related to electronic communications between Ford and its dealers regarding the order, delivery, or payment for replacement parts, so we have not included these kinds of information in our answer.

A description of Ford's OASIS messages, ISMs, and the Field Review Committee files and the search criteria used are provided in **Appendix B**.

OASIS Messages: Ford has identified five SSMs, 17 TSBs and four GSBs that may relate to the Agency's request.

Internal Service Messages: Ford has identified no ISMs that may relate to the Agency's request.

Field Review Committee: Ford has identified five field service action communications that may relate to the Agency's request.

Ford currently has no plans to issue any new communications related to the subject of NHTSA's investigation.

The OASIS Messages and Field Service Action Communications that Ford identified are provided in **Appendix E**.

Request 10

Provide the following information regarding the Subject Recalls and the Subject Service Campaigns, and produce copies of all documents that support your response:

a. Explain how Ford determined the scope of affected vehicles; and
b. Explain how Ford validated the effectiveness of the repair procedures.

Answer

Below is a summary of the requested campaigns, including a synopsis of the information that Ford used to determine the scope of each campaign.

As agreed to by the Agency in an email on August 21, 2018, Ford is providing information in response to all subject recalls except for 15V005, 14V525 and 13V584.

Supporting documents for 12V431, 12V551 and 13V583 are provided in **Appendix F**. Ford is submitting responsive documentation in **Appendix F** with a request for confidentiality under separate cover to the Agency's Office of the Chief Counsel pursuant to 49 CFR Part 512. Supporting documents for 12V336 and 17V209 will be provided with the responses of the remaining requests on October 12, 2018.

**12S35 (12V336000)**
In June and July 2012, three engine compartment fires were reported in new 2013 1.6L Escape vehicles. Two fires occurred at the assembly plant. One additional engine compartment fire occurred in a low mileage customer vehicle. Engineering analysis determined that an engine compartment fuel jumper line, unique to the 1.6L Escape, could become scored during manufacture and manifest itself, during service, as a fuel line split and leak. Ford determined that all 1.6L Escapes manufactured from Job#1 through the date of supplier containment were at risk for the condition.

**12S39 (12V431000)**
In August 2012, a Ford dealer reported an engine compartment fire in a 2013 1.6L Escape during a pre-delivery drive. Engineering analysis determined that a dislodged cylinder head cup plug, resulting in rapid loss of combustible engine coolant, was the cause of the fire. Further investigation suggested that one of the assembly plant fires that led to 12S35 may have also experienced a dislodged cup plug. Ford determined that all 2013 1.6L Escape vehicles, from Job#1 through the date of containment of the dislodged cup plug were at risk for the condition.

**12S41 (12V551000)**
From September through November 2012, Ford received a total of nine reports of vehicles (eight 2013 Escapes and one 2013 Fusion), all equipped with 1.6L engines, that experienced engine compartment fires. A cross functional task force was created to investigate. Through extensive investigation, engine teardown and testing, that task force found that engine overheating and fluid leaks led to the engine compartment fires. All 2013 1.6L Escape and

Fusion vehicles from Job#1 through November 26, 2012 were identified to be at risk for the condition. The task force developed hardware and a robust service procedure to mitigate the risk of coolant loss and overheating that might lead to an engine compartment fire.

**13S12 (13V583000)**
Ongoing research on the part of the cross functional task force led to the conclusion that, 2013 model year 1.6L Escape vehicles operating with coolant levels significantly below the minimum specified amount can lead to a localized overheating of the engine cylinder head which can result in a crack and pressurized oil leak. Sufficient oil leakage could ignite an engine fire. Analysis of field data confirmed such cracks and an engine dynamometer test reproduced a crack similar to field returns. All 2013 1.6L Escape vehicles from Job#1 through June 2, 2013 were at risk for this condition. The task force developed hardware and a robust service procedure to mitigate the risk of a cracked cylinder head.

**17S09 (17V209000)**
During the colder months of 2016, Ford received reports of underhood fires in 2014 1.6L Escape vehicles that were built prior to the February 14, 2014 cylinder head production change. These reports were of primarily localized and/or potentially self-extinguishing fires, and were consistent with the engine control system identifying a potential overheat and taking action to reduce engine temperatures. In January 2017, Ford South Africa announced a recall on 2013 and 2014 Kuga vehicles, equipped with the 1.6L engine, for a risk of an underhood fire associated with localized overheating and cracking of the cylinder head. Concurrent with the Ford South Africa announcement, reports identified an increase in underhood fire allegations, potentially related to overheat on 2013 and 2014 Ford Fusion vehicles equipped with the 1.6L engine in the U.S. In March 2017, Ford announced this campaign to authorize installation of a coolant level sensor in the subject vehicles (along with supporting hardware and software). Model year 2014 and 2015 Fiesta and model year 2013 and 2014 Transit Connect vehicles were added to this campaign because of a substantially similar engine cylinder head design.