



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

1200 New Jersey Avenue SE.  
Washington, DC 20590

FEB - 5 2015

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Steve Kenner, Global Director  
Automotive Safety Office  
Ford Motor Company  
Fairlane Plaza South  
330 Town Center Drive, Suite 400  
Dearborn, MI 48126-2738

NVS-214kmb  
RQ14-005

Dear Mr. Kenner:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Recall Query (RQ14-005) to investigate allegations of loss of sensing function of one or more exhaust gas temperature (EGT) sensors resulting in power reduction (limp) mode and a vehicle commanded engine shutdown (engine stall) with no immediate restart capability in certain model year (MY) 2011-2012 Ford F-250, F-350, F-450 and F-550 "Super Duty" vehicles equipped with 6.7L diesel "Power Stroke" engines manufactured by Ford Motor Company (Ford), and to request certain information.

By letter dated October 28, 2013, Ford Motor Company notified the agency that it was conducting a safety recall (NHTSA Recall No. 13V-535, Ford Recall No. 13S10) on certain model year (MY) 2011-2012 Ford F-350, F-450 and F-550 "Ambulance Package" vehicles equipped with 6.7L diesel "Power Stroke" engines to address a loss of sensing function of the EGT sensor located directly behind the diesel particulate filter (DPF) in the exhaust system. When the subject EGT sensor malfunctions, the powertrain control module interprets the malfunction as an exhaust system overheat condition and indicates a "Stop Safely Now" warning message with 5 audible chimes while the vehicle experiences a controlled power reduction mode (for up to 45 seconds) leading to an uncommanded engine shutdown when the vehicle speed falls below 4 mph. Once the engine is shut down, there is no immediate restart capability. Although the recall vehicles are equipped with 4 identical EGT sensors, any of which may experience a loss of sensing function resulting in the engine shutdown condition, Ford's recall remedy is to replace just the one EGT sensor located behind the DPF.

This office is aware of 30 non-duplicative complaints on MY 2011-2012 Ford F-250, F-350, F-450 and F-550 "Super Duty" vehicles equipped with 6.7L diesel "Power Stroke" engines related to the loss of sensing function of the EGT sensor and subsequent engine shutdown with no immediate restart capability. These complaints cover vehicles both outside and within the scope of the subject recall. Some complaints allege multiple EGT sensor malfunctions, with some

sensors having been replaced more than once. Some complaints allege the recall remedy is not long lasting or that other sensor locations subsequently malfunctioned, resulting in the shutdown condition. Multiple complainants report their vehicle becoming disabled in the roadway as a result of the subject condition. A copy of each of the reports will be sent via email for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2011-2014 Ford F-250, F-350, F-450 and F-550 "Super Duty" vehicles equipped with 6.7L diesel "Power Stroke" engines manufactured for sale or lease in the United States, including, but not limited to, the District of Columbia, and current U.S. territories and possessions.
- **Subject component(s):** all EGT sensors manufactured for use as original equipment and service replacement on the subject vehicles.
- **Subject recall:** NHTSA Recall No. 13V-535 and/or Ford Recall No. 13S10.
- **Ford:** Ford Motor Company, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Ford (including all business units and persons previously referred to), who are or, in or after January 1, 2010, were involved in any way with any of the following related to the alleged defect in the subject vehicles:
  - a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** loss of sensing function of one or more EGT sensors.
- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual

displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Ford, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by Ford or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Ford has previously provided a document to ODI, Ford may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Ford's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject 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. Subject component part number and design version installed as original equipment;
  - f. Powertrain control module calibration software version installed as original equipment;
  - g. Whether it is within the scope of the subject recall;
  - h. Whether the subject recall repairs have been performed;
  - i. Date of manufacture;
  - j. Date warranty coverage commenced; and
  - k. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

2. State the number of each of the following, received by Ford, or of which Ford is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports involving a crash, injury or fatality;
  - d. Property damage claims;
  - e. Third-party arbitration proceedings where Ford is or was a party to the arbitration; and
  - f. Lawsuits, both pending and closed, in which Ford is or was a defendant or codefendant.

For subparts "a" through "f," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Ford's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
  - a. Ford's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), street address, email address and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether property damage is alleged;
  - k. Number of alleged injuries, if any; and
  - l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Ford used for organizing the documents. Describe in detail the search methods and search criteria used by Ford to identify the items in response to Request No. 2.
5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Ford to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign or the subject recall.

Separately, for each such claim, state the following information:

- a. Ford's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), street address, email address and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number(s);
- h. Problem code(s);
- i. Diagnostic trouble code(s);
- j. Replacement part number(s) and description(s);

- k. Concern stated by customer;
- l. Cause as stated on the repair order;
- m. Correction as stated on the repair order; and
- n. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

- 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, problem code descriptions, diagnostic trouble codes and diagnostic trouble 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 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. Describe the specific warranty provisions offered by Ford that cover the subject components. Describe the warranty coverage offered by Ford that covers the subject recall repairs.

- 7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject 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.
- 8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Ford, including all such actions related to the subject recall. For each such action, provide the following information:
  - a. Action title or identifier;
  - b. The actual or planned start date;
  - c. The actual or expected end date;
  - d. Brief summary of the subject and objective of the action;
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
  - f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

9. Describe all modifications or changes made by, or on behalf of, Ford in the design, material composition, manufacture, quality control, supply, or installation of the subject component and the powertrain control module calibration software, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:
  - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
  - b. A detailed description of the modification or change;
  - c. The reason(s) for the modification or change;
  - d. The part number(s) (service and engineering) of the original component or software;
  - e. The part number(s) (service and engineering) of the modified component or software;
  - f. Whether the original unmodified component or software was withdrawn from production and/or sale, and if so, when;
  - g. When the modified component or software was made available as a service component or software; and
  - h. Whether the modified component or software can be interchanged with earlier production components or software.

Also, provide the above information for any modification or change that Ford is aware of which may be incorporated into vehicle production within the next 120 days.

10. Produce one of each of the following:
  - a. Exemplar samples of each design version of the subject component;
  - b. Field return samples of the subject component exhibiting the subject failure mode; and
  - c. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.
11. State the number of each of the following that Ford has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (*including the cut-off date for sales, if applicable*):
  - a. Subject component; and
  - b. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Ford is aware that contain the identical component, whether

installed in production or in service, and state the applicable dates of production or service usage.

12. Provide the following information related to each item (subject component, powertrain control module calibration software version) within the scope of Request No.9:
  - a. List and briefly describe all software diagnostic routines and associated diagnostic trouble codes performed on the subject component including, but not limited to, failure determination strategies such as calibration tests, continuity and accuracy checks, circuit high/low voltage and counter/timer thresholds;
  - b. List and briefly describe EGT determination algorithms, including any designed-in system fail-soft strategies and countermeasures; and
  - c. Specifications including functional and performance requirements, design constraints and validation plans.
  
13. Furnish Ford's assessment of the alleged defect in the subject vehicle, including:
  - a. The causal or contributory factor(s);
  - b. The failure mechanism(s);
  - c. The failure mode(s);
  - d. The role of the powertrain control module calibration software version installed;
  - e. The stalling incident rates by model and model year estimated by Ford at 36- and 60-months in service based on statistical modeling of incident experience to date. Include a detailed explanation of Ford's method for performing the statistical analysis, the statistical model, files listing the failure and suspension inputs values, the model output parameters (e.g., Weibull slope and shape parameters), and the requested incident rate estimates;
  - f. The risk to motor vehicle safety that it poses;
  - g. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning. Include Ford's assessment of the time between the onset of the alleged defect condition and the powertrain control module command to shut down the engine, shown as a function of vehicle speed at onset of the alleged defect condition, road grade and curb weight; and
  - h. The reports included with this inquiry.

### **Legal Authority for This Request**

This letter is being sent to Ford pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

### **Civil Penalties**

Ford's failure to respond promptly and fully to this letter could subject Ford to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) The Vehicle Safety Act, as



amended, 49 U.S.C. § 30165(a)(3), provides for civil penalties of up to \$7,000 per violation per day, with a maximum of \$35,000,000 for a related series of daily violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond completely, accurately, and in a timely manner to ODI information requests. The maximum civil penalty of \$7,000 per violation per day is established by 49 CFR 578.6(a)(3). The maximum civil penalty of \$35,000,000 for a related series of daily violations of 49 U.S.C. § 30166 is authorized by 49 U.S.C. § 30165(a)(3) as amended by § 31203(a)(1)(B) of the Moving Ahead for Progress in the 21<sup>st</sup> Century Act, Public Law 112-141.

If Ford cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Ford does not submit one or more requested documents or items of information in response to this information request, Ford must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

### **Confidential Business Information**

**All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to RQ14-005 in Ford's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If Ford claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Ford must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Ford is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the phrase "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONTAINS CONFIDENTIAL BUSINESS INFORMATION" (as appropriate) must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 49 CFR 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats. *See* 49 CFR 512.6(c) (as amended by 72 Fed. Reg. 59434 (October 19, 2007)).

If you have any questions regarding submission of a request for confidential treatment, contact Otto Matheke, Senior Attorney, Office of Chief Counsel at otto.matheke@dot.gov or (202) 366-5253.

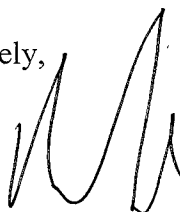
**Due Date**

Ford's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by March 19, 2015. Ford's response must include all non-confidential attachments and a redacted version of all documents that contain confidential information. If Ford finds that it is unable to provide all of the information requested within the time allotted, Ford must request an extension from me at (202) 366-6938 no later than five business days before the response due date. If Ford is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Ford then has available, even if an extension has been granted.

Please send email notification to Mr. Kyle Bowker at kyle.bowker@dot.gov and to ODI\_IRresponse@dot.gov when Ford sends its response to this office and indicate whether there is confidential information as part of Ford's response.

If you have any technical questions concerning this matter, please call Mr. Kyle Bowker of my staff at (202) 366-9597.

Sincerely,



Bruce York, Chief  
Medium and Heavy Duty Vehicles Division  
Office of Defects Investigation

Copies of the subject reports referenced in the introduction of this letter are identified by the following ODI reference numbers: 10503634, 10503797, 10513931, 10525208, 10545116, 10547999, 10556889, 10557234, 10564510, 10567290, 10567358, 10568674, 10572839, 10574838, 10579219, 10606677, 10610312, 10621711, 10627957, 10631970, 10632229, 10638930, 10640978, 10644338, 10652139, 10652400, 10654810, 10654813, 10658643, 10661398, 10662021.