



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

1200 New Jersey Avenue SE.  
Washington, DC 20590

JUN 16 2011

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

Mr. James Vondale, Director  
Automotive Safety Office  
Environmental and Safety Compliance  
Ford Motor Company  
330 Town Center Drive, Suite 400  
Dearborn, MI 48126

NVS-213swm  
PE11-018

Dear Mr. Vondale:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE11-018) to investigate allegations of unexpected engine speed increase when idling in model year (MY) 2005 through 2007 Ford Freestyle vehicles manufactured by Ford Motor Company, and to request certain information.

This office has received 245 reports of unexpected engine speed increase when operating in idle mode (accelerator not applied) in MY 2005 through 2007 Ford Freestyle vehicles. The complaints allege short duration increases in engine speed. If the driver did not have the brake applied, or applied the brake after the speed increase, some vehicle movement was generally reported by the driver. Some complaints have reported difficulty having the problem diagnosed and repaired, but those reporting repairs have identified the throttle body assembly as the faulty component.

Current analysis of complaints shows a distinct seasonal pattern that peaks during summer months. This is consistent with complaints indicating that the problem is more noticeable when the air-conditioning is on. A copy of each of the reports has been previously forwarded to you.

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

- **Subject vehicles:** All MY 2005 through 2007 Ford Freestyle and Five Hundred vehicles manufactured for sale or lease in the United States and federalized territories.
- **Subject component:** All throttle body assemblies manufactured for use as original equipment or service replacement parts in the subject vehicles.

- **Ford:** Ford Motor Company, its relevant suppliers, and all of their past and present officers and employees, whether assigned to their principal offices or any of their field or other locations, including all of their 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, 2001, 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:** For purposes of this information request, the alleged defect is defined as unstable idle speed control, including any one or more of the following symptoms or conditions occurring when the accelerator pedal is not applied:
  - a. Unexpected vehicle movement and/or increase in engine speed when idling in gear (Drive or Reverse), either while stopped or moving slowly at parking lot or driveway speeds;
  - b. Unexpected engine power and/or engine speed when shifting into gear (Drive or Reverse); or
  - c. Unexpected engine speed increase when idling and not in gear.
  
- **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 and federalized territories. 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. Transmission;

- f. Drivetrain (e.g., all-wheel drive);
- g. Air-conditioning (Y/N);
- h. Date of manufacture;
- i. Date warranty coverage commenced; and
- j. 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 2007, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State, by model and model year, the number of subject vehicles Ford has manufactured for sale or lease in the United States and federalized territories for which Ford sold an extended service plan. For vehicles with more than one extended service plan list the vehicle separately for each plan. Separately, for each vehicle, state the following:
  - a. Vehicle Identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model Year;
  - e. Name of extended service plan;
  - f. Mileage at which the extended service plan expires; and
  - g. Number of months from the warranty start date at which the extended service plan expires.

Provide this information in Microsoft Access 2007, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

3. 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, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
  - 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 "d" 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.

4. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 3, state the following information:
  - a. Ford's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 3 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet name (and fleet contact person), 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 2007, or a compatible format, entitled "REQUEST NUMBER THREE DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

5. Produce copies of all documents related to each item within the scope of Request No. 3. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Ford used for organizing the documents.
6. 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 the subject component: 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.

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

- a. Ford's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Vehicle's make;
- e. Vehicle model;
- f. Vehicle model year
- g. Repair date;

- h. Vehicle mileage at time of repair;
- i. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- j. Labor operation number;
- k. Problem code;
- l. Replacement part number(s) and description(s);
- m. Diagnostic trouble codes associated with the repair;
- n. Concern stated by customer;
- o. Cause identified by dealer/technician;
- p. Correction/repair identified by dealer/technician;
- q. Additional comments, if any, by dealer/technician relating to claim and/or repair; and
- r. Indicate the type of coverage under which Ford paid the claim (e.g., base warranty, goodwill, extended warranty, etc.).

Provide this information in Microsoft Access 2007, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

7. Describe in detail the search criteria used by Ford to identify the claims identified in response to Request No. 6, including the labor operations, problem codes, computer fault 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, 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.
8. 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.
9. 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. 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.

10. Describe all modifications or changes made by, or on behalf of, Ford in the design, material composition, manufacture, quality control, supply, or installation of (1) the subject component, or (2) the idle speed control 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) or software level of the original component;
  - e. The part number(s) (service and engineering) or software level of the modified component;
  - f. Whether the original unmodified component 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/software upgrade; and
  - h. Whether the modified component can be interchanged with earlier production components.

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.

11. Produce two of each of the following:
- a. Exemplar samples of each design version of the throttle body assembly;
  - b. Exemplar samples of each design version of throttle position sensor;
  - c. Field return samples of the throttle body assembly representative of the worst-case condition of throttle dirt/sludge build-up measured by Ford;
  - d. Field return samples of throttle position sensors displaying worst-case condition (e.g., change in resistance); and
  - e. A throttle body assembly specially modified by Ford for testing to simulate the worst case throttle dirt/sludge build-up condition.

Include the following information about the parts provided: (1) information identifying the associated vehicle and repair for all field return parts, including customer information; (2) copies of all complaints, repair records and return part analysis reports associated with field return parts; (3) identify the metric used to rank parts for the throttle sensor condition (e.g., change in resistance); (4) identify the metric used to rank parts for the throttle dirt/sludge accumulation condition (e.g., change in idle air flow); (5) descriptions of the methods and test procedures used to assess "worst case" for each condition; (6) the specific values for the

ranking metric for each part provided; and (7) a description of the procedure used to produce the part requested in 11.e

12. State the number of subject components 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).

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.

13. Provide the following information regarding the throttle position sensors (TPS) used in the subject vehicles:
  - a. Voltage curves for TPS1 and TPS2 showing voltages vs throttle angle;
  - b. A plot of TPS1 voltage vs TPS2 voltage showing ranges where the system operates with no DTC and ranges associated with each TPS DTC;
  - c. Copies of all warranty return analysis reports generated by, or for, Ford related to the throttle position sensors used in the subject vehicles, organized by supplier, model and model year;
  - d. A detailed description of all failure mechanisms associated with throttle position sensors used in the subject vehicles that have been identified in warranty return analyses;
  - e. A detailed description of the failure modes associated with each failure mechanism, including their effect on vehicle operation; and
  - f. Ford's assessment of the effects of each TPS condition on the alleged defect in the subject vehicles, including a summary of all tests and analyses upon which the assessment is based.
14. Provide the following information regarding the idle speed control system used in the subject vehicles:
  - a. A description of system operation, including how the system recognizes when to implement idle speed control;
  - b. A block diagram showing all input signals and controlled signals/devices;
  - c. The nominal values for desired engine rpm, throttle angle and air flow (assuming warm engine, in gear, no accessory torque requests);
  - d. Identify all systems/accessories that can request engine torque (airflow) in idle speed control mode and provide the following information for each such system;
    - i) A description of how the idle speed control system receives the torque request signal;
    - ii) A description of how the amount of torque/rpm requested is calculated;
    - iii) The maximum amount of torque/rpm that can be requested;
    - iv) The maximum throttle angle increase that can be requested;
    - v) The time delay between the torque request signal and the application of load on the engine (e.g., time between air conditioning compressor signal and compressor clutch engagement);



- e. A description of how throttle angle is controlled in idle speed control mode, including the maximum throttle angle possible;
- f. Identify all DTC's associated with idle speed control and/or the alleged defect; and
- g. The effects of throttle dirt/sludge accumulation on idle speed control.

15. Provide Ford's assessment of the effects the alleged defect on vehicle dynamics, including:

- a. The worst case engine speed increase (magnitude and duration, with a brief discussion of factors limiting each);
- b. The effects of 15.a on vehicle dynamics (i.e., vehicle acceleration with no braking) for various conditions that have been reported by consumers (e.g., standing start, rolling starts at parking lot speeds in drive or reverse, low-speed driving (~15 mph), or coast down from cruising speed);
- c. The effect on brake pedal efforts required to (1) keep a stationary vehicle from moving; or (2) stop a moving vehicle;
- d. Describe the effects of the following on vehicle accelerations and braking efforts described above:
  - i) Torque converter design/operation, including stall speed, lockup speed and torque multiplication ratio;
  - ii) Transmission design/operation (i.e., differences between CVT and standard transmission);
  - iii) Drivetrain (e.g., differential design/operation for all-wheel drive and two-wheel drive);
- e. State whether Ford has an engineering standard/target for maximum acceleration in idle mode and, if so, provide the specification (magnitude and duration), the basis (for both the magnitude and duration) and how the standard is verified/controlled in vehicle design and testing; and
- f. Describe all human factors testing or evaluations performed by, or for, Ford regarding the effects of driver performance/reaction variability on vehicle dynamic effects that may result from the alleged defect in the subject vehicles (for example, patterns of pedal usage in low-speed maneuvers, ranges of brake pedal effort used in parking lot maneuvers or when stopped and idling, brake reaction times, driver startle response).

16. Furnish Ford's assessment of the alleged defect in the subject vehicles, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses, including Ford's assessment of each of the crash and injury allegations reported either NHTSA or Ford;
- e. 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; and
- f. The reports included with this inquiry.

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. 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.) Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$6,000 per day, with a maximum of \$17,350,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

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.


Ford's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by August 12, 2011. **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 PE11-018 in Ford's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. 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) 366-5207 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.

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 word "CONFIDENTIAL BUSINESS INFORMATION" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 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 (49 CFR 512.6(c)). *See* Federal Register, volume 72, page 59434 (October 19, 2007).

Please send email notification to [stephen.mchenry@dot.gov](mailto:stephen.mchenry@dot.gov) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when Ford sends its response to this office and indicate whether there is confidential information as part of Ford response and include any appropriate shipping/ mailing tracking numbers.

If you have any technical questions concerning this matter, please call Stephen McHenry of my staff at (202) 366-4883.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey L. Quandt', written in a cursive style.

Jeffrey L. Quandt, Chief  
Vehicle Control Division  
Office of Defects Investigation

Enclosure 1, one CD ROM titled Data Collection Disc containing four files