Ford Motor Company

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NVS-210

2004 JUN 30 P 12 14

OFFICE OF DEFECTS
INVESTIGATION

James P. Vondale, Director
Automotive Safety Office
Environmental & Safety Engineering

June 29, 2004

Ms. Kathleen C. DeMeter, Director
Office of Defects Investigation Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

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2004 JUN 30 P 12 14

OFFICE OF DEFECTS
INVESTIGATION

Dear Ms. DeMeter:

Subject: EA04-008:NVS-213bby

The Ford Motor Company (Ford) response to the agency's April 29, 2004 letter requesting information concerning allegations of accelerator pedal assembly failures on 2001 through 2003 model year F-Super Duty and Excursion vehicles equipped with diesel engines is attached.

Ford has thoroughly investigated reports of ETC accelerator pedal malfunctions and believes there is no basis to conclude the reported incidents identify a safety related defect. Analysis of the data submitted to the agency gathered during this investigation has identified many potential conditions that can result in an ETC accelerator pedal system replacement on the subject vehicles. Those conditions may or may not include a verifiable malfunction of the accelerator pedal assembly and may or may not relate to engine performance. For example, the assembly may be replaced if a customer believes it is making noise or does not have a smooth feel. Obviously, such concerns do not affect engine performance.

Review of warranty claims indicates that accelerator pedals may also be replaced for a variety of engine performance reasons, sometimes appropriately and other times not. Review of claims has found that accelerator pedals are often inappropriately replaced to resolve such concerns as no start, rough idle, engine surging, and lack of power. These inappropriate replacements are, in fact, verifiable from information available in warranty claims. While good warranty practice requires a faithful examination of diagnostic codes prior to replacing the powertrain control module (PCM) monitored components, the search for accelerator pedal codes is often not referenced in warranty reports.

Ford acknowledges that many of the warranty claims carry a diagnostic code consistent with a fault in the signal received by the PCM from the pedal. The fault code may indicate a permanent or intermittent malfunction in the pedal assembly that could cause the engine to return to idle. Engineering analysis has determined that conditions such as over travel of the pedal (i.e. excessive force on the pedal pad) can interrupt the pedal voltage signal and put the engine into an idle state. In most cases, this condition is intermittent, with full pedal function restored after the pedal is returned to the idle position.

Another factor that complicates this investigation is Ford's prior field service action that already has replaced many of the pedal assemblies about which customers had early complaints. It would be inaccurate to consider those early complaints as indicative of the current performance of these vehicles. As the agency is aware, Ford initiated Field Service Action (FSA) 03B03, in February 2003 to address a high rate of complaints on a certain group of 7.3L diesel engine vehicles equipped with adjustable ETC pedals. The investigation that led up to the field action identified grease migration from the idle validation sensor (IVS) to the potentiometer on certain 2002 and 2003 model year F-Super Duty and Excursion vehicles equipped with the "2-track" system. Over time, the grease migration could corrupt the voltage signal to the PCM, causing the system to return to idle. At the time the action was initiated, the warranty repair rate was 120 R/1000 at 12 months in service (MIS). Ford felt a customer satisfaction program was warranted based on this rate. Ford notes that approximately 97 percent of the responsive PAP warranty claims occurred on vehicles equipped with the pre-FSA 03B03 pedal. In addition, Ford has analyzed the warranty system for repeat repairs and found only a very small number of vehicles that may have had a subsequent repair after receiving the non-migrating grease pedal in service. Ford believes that the FSA properly addressed the concern and the performance of the adjustable pedals subsequent to the FSA is at the expected level for this type of design.

Ford searched for allegations of accidents, injuries, or fatalities in the responsive reports that are associated with PAP systems on the subject vehicles. A search of all claims and review of VOQs revealed five reports alleging accidents, with two alleging minor injuries. All allegations of accidents involved the "2-track" pedal system and, except for VIN 1FTSW31F72E[redacted] discussed in the response, all alleged accidents occurred before FSA 03B03 pedal replacements.

Ford's investigation into the fixed pedal design ("2-track" system), for the 7.3L diesel vehicles, identified a repair rate of approximately 12 R/1000 at 24 MIS, based on responsive AWS data. This rate does not signify the existence of a safety defect. Field data consistently show that malfunction of an ETC accelerator pedal results in the throttle returning to idle, a condition mandated by FMVSS 124. Furthermore, cycling the pedal to the idle position, as the driver is likely to do as the engine begins to lose power, typically restores normal function.

Ford also searched for allegations of accidents, injuries, or fatalities in the responsive reports that involve the subject vehicles with the fixed pedal system. A search of all claims revealed only one claim of an accident (Hudson), which was discussed in our PE response.

For the 2003 model year 6.0L engine vehicles, Ford released new "3-track" design pedal assemblies. The warranty repair rate for the PAP assembly on that engine, is approximately 6 R/1000 at 12 MIS, and for the fixed pedal it is approximately 4 R/1000 at 12 MIS. With a low repair rate and absence of customer complaints, Ford believes the "3-track" accelerator pedals (both fixed and adjustable) in these vehicles are performing well.

Ford concludes that there is a low failure rate in post-FSA 03B03 PAP assemblies and both "3-track" accelerator pedals (fixed and PAP). Additionally, there is a lack of responsive accidents and injuries associated with all ETC pedals ("2-track" and "3-track"). While the number of claims and reports for the "2-track" fixed pedal is not as low as the "3-track" design, the somewhat higher rate alone does not provide evidence of a safety defect.

After thoughtful consideration, Ford believes that ETC pedals, both "2-track" and "3-track," fixed and adjustable, perform in an acceptable manner and always to FMVSS requirements. The

lack of accidents and injuries allegedly related to this investigation confirm that the alleged accelerator pedal malfunction does not pose an unreasonable risk to safety.

If you have any questions concerning this response, please contact me.

Sincerely,

R. A. Nemi

for James P. Vondale

Attachment

ATTACHMENT
June 29, 2004

FORD MOTOR COMPANY (FORD) RESPONSE TO EA04-006

Ford's response to this Engineering Analysis 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 on an expedited basis make 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 Engineering Analysis.

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, as more fully described in this response. 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.

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 April 29, 2004, the date of your inquiry. Ford has searched business units and/or affiliates within the following offices for responsive documents: Environmental and Safety Engineering, Ford Customer Service Division, Marketing and Sales Operations, Purchasing, Quality, Research, Global Core Engineering, Office of the General Counsel, and North American Truck Product Development.

Request 1

In review of Ford's PE03-044 IR response, ODI found Warranty, MORS, CQIS, and UDB reports with VINs that did not appear in Ford's response to Request 1 of the PE IR (see specific examples contained in the MS Excel spreadsheet, titled "ComplaintVINsNotFoundInPopulation.xls", included on the enclosed CD-ROM). Please note that the subject vehicles definition of this IR differs from the PE03-044 request, and the vehicle transmission type is also being requested. Please restate the number of subject vehicles Ford has manufactured for sale or lease in the United States, and for each subject vehicle manufactured to date by Ford, state the following:

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a. Vehicle identification number (VIN);
b. Model;
c. Date of manufacture;
d. Date warranty coverage commenced;
e. Transmission type (manual or automatic);
f. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease); and
g. Accelerator pedal system type (PAP or fixed).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See the enclosed CD-ROM, EA04-006 IR Attachments, for a pre-formatted table which provides further details regarding this submission.

Answer

Ford records indicate that the approximate total number of 2001-2003 model year F-Series Super Duty and Excursion vehicles with diesel engines sold in the United States (the 50 states and the District of Columbia) and its protectorates and territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands) is 674,899.

The number of subject vehicles sold in the United States by model, model year, transmission type, and pedal type is shown below:

	2001 MODEL YEAR		2002 MODEL YEAR		2003 MODEL YEAR	
	Auto.	Manual	Auto.	Manual	Auto.	Manual
F Series Super Duty (fixed pedal)	183,872	31,689	128,848	24,153	118,592	17,731
F Series Super Duty (adj. pedal)	N/A	N/A	58,128	N/A	73,151	N/A
Excursion (fixed pedal)	13,103	N/A	857	N/A	817	N/A
Excursion (adj. pedal)	N/A	N/A	11,784	N/A	12,174	N/A

The requested data for each subject vehicle is provided electronically in Appendix A1 (file: 2004-06-29_Appendix_A1) on the enclosed CD.

Ford reviewed the MS Excel spreadsheet, titled "ComplaintVINsNotFoundinPopulation.xls" and found three principal reasons why 117 vehicle VINs identified in warranty, MORS, CQIS, and UDB claims and reports, submitted as part of PE03-044, did not appear in Ford's response to Request 1 of the PE. First, 56 of the vehicles were Canadian units inadvertently included in the various claims and reports and AWS inadvertently included 12 claims on other export units (i.e. Israel, Jamaica, Morocco, El Salvador, Saudi Arabia). Second, at the time of the PE, 35 units were not yet recorded as sold in the North American Vehicle Information System (NAVIS) even though many, but not all, of the 35 units were in service at the time of the run. Ford did verify, through the Ford Customer Service Division, that owner records do indeed exist for all sold units. Finally, 11 federated territory vehicles (Puerto Rico) were inadvertently excluded from the NAVIS population. The remaining four units were made up of unrecognizable VINs or gas engine vehicles inadvertently included in UDB.

Request 2

Provide a list of the VINs of the subject vehicles that were included in Ford's FSA 03B03. Provide the listing in an electronic format that is compatible with Microsoft Access 2000. Ensure that each VIN provided in this response also appears in the response to Request 1 (population database).

Answer

A list of VINs of the subject vehicles that were included in Ford's Field Service Action (FSA) 03B03 is included in Appendix A2 (file: 2004-06-29_Appendix_A2) on the enclosed CD. Per the agency's request, the total count of 93,133 vehicles reconciles to the NAVIS population database. Ford's response to the PE inquiry included a list of 102,842 F-Series Super Duty and Excursion vehicles included in the field service action, of which 9,709 VINs belonged to either Canadian units or units not recorded as sold in the Ford NAVIS system (reference Ford's response to Request 1). Also note that 5,321 vehicles included in the NAVIS population received the FSA design level pedal assembly (non-migrating grease) either in production (after October 17, 2002) or as a service replacement before the field service action was announced in February 2003 and thus were excluded from the FSA list. Ford sampled a portion of the above 5,321 vehicle population and verified that these vehicles did receive the revised pedal during the time interval referenced above.

Request 3

State the number of each of the following, received by Ford, or of which Ford are 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.

Ensure that this response includes all such items (consumer complaints, field reports, crash reports, etc) received to date by Ford, regardless of whether the vehicle was involved in Ford's FSA 03B03 or not. Please disregard (as opposed to supplement) Ford's PE03-044 response to Request 2 (complaints and reports data) in its entirety and produce a new submission that contains the requested complaint data. Ensure that each VIN provided in this response also appears in the response to Request 1 (population database).

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 "f" and "g," 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.

Answer

For purposes of identifying reports of incidents potentially involving the alleged defect and any related documents, Ford has gathered "owner reports" and "field reports" maintained by Ford Customer Service Division (FCSD), Intensified Customer Concern Definition (ICCD) data maintained by Ford's Quality Office, fleet reports maintained in a Fleet Test Database, and claim and lawsuit information maintained by Ford's Office of the General Counsel (OGC).

Where noted, Ford is providing this information in two discreet databases; one for the fixed pedal and another for the power adjustable pedal (PAP). Ford notes that the agency may combine this data into a single database desires if it desires.

Descriptions of the FCSD owner and field report systems, the ICCD and the Fleet Test Database systems, and the criteria used to search each of these are provided electronically in Appendix B (file: 2004-06-29_Appendix_B) on the enclosed CD.

The following categorizations were used in the review of reports located in each of these searches:

Category	Allegation
A1	Alleged inability to increase engine speed above idle when pedal is depressed
A2	Alleged loss of motive power when pedal is depressed or held open
B1	Alleged engine performance concern associated with pedal application, but ambiguous as to whether pedal is root cause 1/
C1	FSA 03B03 action with no mention of engine performance concern 2/

1/ We are providing electronic copies of these reports as "non-specific allegations" for your review because of the broad scope of the request. Based on our engineering judgment, the information in these reports is insufficient to support a determination that they pertain to the alleged defect.

2/ We are providing electronic copies of these reports per your request. Ford does not believe there is a basis to conclude that these reports involve pedal malfunctions.

Owner Reports: The search and review of the Ford Master Owner Relations Systems (MORS) database records, as described in Appendix B, identified the following number of owner reports in accordance with the categories described above:

Fixed Pedal

Category	A1	A2
Reports	73	23

PAP

Category	A1	A2
Reports	82	11

Copies of responsive owner reports and the ambiguous owner reports are provided in the MORS III portion of the electronic database contained in Appendix C (files 2004-06-29-Appendix_C_Adj and 2004-06-29-Appendix_C_Fixed) on the enclosed CD. The categorization of each report is identified in the "Category" field. When we were able to identify that responsive (i.e., not ambiguous) duplicate owner reports for an alleged incident were received, each of these duplicate reports is marked accordingly, and the group is counted as one report.

In other cases, certain vehicles may have experienced more than one incident and have more than one report associated with their VINs. These reports have been counted separately.

Legal Contacts: Ford is providing in Appendix B a description of Legal Contacts and the activity that is responsible for this information, Litigation Prevention. To the extent that responsive (i.e., not ambiguous) owner reports indicate that they are Legal Contacts, Ford has gathered the related files from the Litigation Prevention section. Based on this search, one file was located and is provided in Appendix D (file: 2004-06-29_Appendix_D).

Five files were provided to the agency in Ford's response to PE03-044. Of those files, Kamahrens (1FMSU43F71E[redacted] and Smith (1FDWX37F51E[redacted] are no longer responsive under the current definition of the alleged defect. The other three files (Hudson, Paychex, and Grimes) remain responsive and related documents can be found in Appendices D1 and D2 in Ford's response to PE03-044. Ford again notes that the Paychex file, as well as the Hudson and Pearah files from the lawsuit and claims log, all relate to the same incident.

ICCD Information: A search of the ICCD database as described in Appendix B located no new reports that may relate to the alleged defect, and no reports that are ambiguous as to whether they relate to the alleged defect.
Twenty-six files were provided to the agency in response to PE03-044. Of those files, 16 are no longer responsive under the current definition of the alleged defect. Of the remaining ten files Ford has identified two reports that may relate to the alleged defect (labeled PE03-044 27167-27168), and the remaining eight other reports are ambiguous as to whether they relate to the alleged defect (labeled PE03-044 27174, 27180-184, 27187, and 27190). The referenced documents can be found in Appendices E1 and E2 in Ford's response to PE03-044.

Fleet Reports: In addition to fleet reports that may be contained in the owner reports or field reports identified in this response, Ford conducted a search of its Fleet Test Database as described in Appendix B for reports that may relate to the alleged defect in the subject vehicles. No fleet reports were identified in this search or in the previous search conducted in preparation of our response to PE03-044.

Field Reports: The search and review of the Ford Common Quality Indicator System (CQIS) records, as described in Appendix B, identified the following number of field reports, excluding duplicates, in accordance with the categories described above:

Fixed Pedal

Category	A1	A2
Reports	214	46

PAP

Category	A1	A2
Reports	261	36

Copies of these responsive field reports and the ambiguous field reports are provided in the CQIS portion of the electronic database contained in Appendix C on the enclosed CD. The categorization of each report is identified in the "Category" field. When we were able to identify that responsive (i.e., not ambiguous) duplicate field reports for an alleged incident were received, each of these duplicate reports is marked accordingly, and the group is counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one report associated with their VINs. These reports have been counted separately.

Unified Database: The Unified Database (UDB) was created to facilitate parts availability by tracking part sales and is not intended as a problem reporting system. However, because a small percentage of the records may contain verbatim comments that could potentially relate to the agency's inquiry, a search of UDB, as described in Appendix B, was conducted. This search identified the following number of reports, excluding duplicates, in accordance with the categories described above:

UDB

Fixed Pedal

Category	A1	A2
Reports	180	38

PAP

Category	A1	A2
Reports	498	48

Copies of responsive reports and the ambiguous reports are provided in the UDB portion of the electronic database contained in Appendix C on the enclosed CD.

The categorization of each report is identified in the "Category" field. When we were able to identify that responsive (i.e., not ambiguous) duplicate UDB reports for an alleged incident were received, each of these duplicate reports is marked accordingly, and the group is counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one report associated with their VINs. These reports have been counted separately.

VOQ Data: This information request had an attachment that included 14 Vehicle Owner's Questionnaires (VOQs). Ford made inquiries of its MORS database for customer contacts, and its CQIS database for field reports regarding the vehicles identified on the VOQs. Ford notes that in some instances, where the VOQ does not contain the VIN or the owner's last name and zip code, it is not possible to query the databases for owner and field reports specifically corresponding to the VOQs. Any reports located on a vehicle identified in the VOQs related to the alleged defect are included in the MORS and CQIS portions of the electronic database provided in Appendix C and have been identified by a "Y" in the "VOQ Dup" field.

Additionally, Ford located two Litigation Prevention files regarding vehicles identified in the VOQs. Copies of these files are provided in Appendix E (file: 2004-06-29_Appendix_E).

Crash/Injury Incident Claims: For purposes of identifying alleged accidents or injuries potentially related to the alleged defect, Ford has reviewed responsive (i.e., not ambiguous) owner and field reports, lawsuits and claims, and warranty claims. Based on a reasonable and diligent search for crash/injury incident claims associated with the power adjustable pedal (PAP) assembly Ford located five owner (MORS) reports alleging an accident [VINS: 1FMSU43F22E[redacted] FTSW31F33E[redacted] 1FTNW21F32E[redacted] 1FTSW31F13E[redacted] 1FTSW31F72E[redacted] o field (CQIS) reports, no warranty claims, and no lawsuits and claims. Each of these alleged accidents occurred prior to PAP replacement under FSA 03B03. Two of the reports [VINS: 1FMSU43F22E[redacted] and 1FTSW31F72E[redacted] alleged minor injuries.

Based on a reasonable and diligent search for crash/injury incident claims associated with the fixed pedal assembly, Ford located one owner (MORS) report [VIN 1FTNW21F21E[redacted] (Hudson)], no field (CQIS) reports, no warranty claims, and one lawsuit and claim [VIN 1FTNW21F21E[redacted] (Hudson)] that allege an accident that may have been related to the alleged defect.

The owner and field reports and warranty claims, if any, are included in the MORS, CQIS, and Analytical Warranty System (AWS) portions of the electronic database provided in Appendix C. Lawsuit and claim information is provided as described below.
Claims, Lawsuits, and Arbitrations: For purposes of identifying incidents potentially related to the alleged defect, Ford has gathered claim and lawsuit information maintained by Ford's OGC. Ford's OGC is responsible for handling product liability lawsuits, claims, and consumer breach of warranty lawsuits and arbitrations against the Company.

Based on a reasonable and diligent search, Ford located one lawsuit and no claims in addition to those in our response to PE03-044 that appear to relate to the alleged defect in the subject vehicles. Ford notes that the alleged apparently minor injury related to the lawsuit (Sayer) is not related to the alleged defect and is not included in the Crash/Injury count.

Ford has also located other non-product liability consumer lawsuits each of which is ambiguous as to whether it meets the alleged defect criteria. We have included these lawsuits and claims as "non-specific allegations" for your review because of the broad scope of the request. Based on our engineering judgment, the information in these lawsuits and claims is insufficient to support a determination that they pertain to the alleged defect.

We are providing the requested detailed information, where available, on the responsive and ambiguous lawsuits and claims, along with our Log of Lawsuits and Claims, as Appendix F (file: 2004-06-29_Appendix_F) on the enclosed CD. This log also contains matters that were identified in Ford's response to PE03-044 that remain responsive to this inquiry.
With regard to these lawsuits and claims, Ford has not undertaken to contact outside law firms to obtain additional documentation.

Request 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 2000, or a compatible format, entitled "COMPLAINT DATA." See the enclosed CD-ROM, EA04-006 IR Attachments, for a pre-formatted table which provides further details regarding this submission.

Answer

The requested information, to the extent available, is provided in Appendices C through F as discussed in response to Request 3.

Ford also refers the agency to its response in PE03-044 for additional documents related to lawsuits, claims, and consumer breach of warranty lawsuits as discussed in response to Request 3.

Request 5

For any responsive information within the scope of Request No. 3 that exists in paper form, produce copies of documents that are related to items "c" through "f" only (crash/injury/fatality, or property damage claims). Organize the paper documents separately by category (i.e., crash complaints, injury claims, etc.) and describe the method Ford used for further organizing the documents within each category.

Answer

Copies of paper and electronic reports and information identified in Ford's response to Request 3 are provided as identified below:

	Method of Organization	
Category	EA04-006	PE03-044
Owner Reports	Appendix C	(included in EA)
Field Reports	Appendix C	(included in EA)
Unified Database Reports	Appendix C	(included in EA)
VOQ Data	Appendices C and E	N/A
Legal Contacts	Appendix D	Appendices D1 and D2
ICCD Reports	N/A	Appendices E1 and E2
Non-privileged Lawsuit and Claim Information	Appendix F	Appendix F

Request 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, 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.

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. 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;

h. Problem code;
i. Replacement part number(s) and description(s);
j. Concern stated by customer; and
k. Comment, if any, by dealer/technician relating to claim and/or repair.

Ensure that this response includes all such claims received by Ford to date, regardless of whether the vehicle was involved in Ford's FSA 03B03 or not. Please disregard (as opposed to supplement) Ford's PE03-044 response to Request 5 (warranty claims) and produce a new submission that contains the requested warranty data. Ensure that each VIN provided in this response also appears in the response to Request 1 (population database). Additionally, ensure the causal parts fields (PART_NUM_CAUS_ PREF, PART_NUM_CAUS_BASE, and PART_NUM_CAUS_SUFF) in each record identifies the AP assembly part number that was submitted with the warranty claim.

Provide this information in Microsoft Access 2000 (or compatible) form and in the standard table format (t_A_Import) used by Ford for reporting warranty data.

Answer

In responding to this information request, Ford electronically searched its Analytical Warranty System (AWS) for all claims meeting the criteria described in Appendix B. The resulting claims were then reviewed individually for allegations that may relate to the alleged defect. This search and review of the Ford AWS database records identified the following number of non-duplicative warranty claims in accordance with the categories described above.

Fixed Pedal

Category	A1	A2
Reports	4995	1023

PAP

Category	A1	A2
Reports	7439	1568

Ford is providing this information in two discreet databases (fixed pedal and PAP pedal). Ford notes that the agency may combine this data into a single database if it desires.

Electronic copies of these claims are provided in the AWS portion of the electronic database contained in Appendix C. The categorization of each report is identified in the "Category" field. When we were able to identify that duplicate claims for an alleged incident were received, each of these duplicate claims is marked accordingly and the group is counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one claim associated with their VINs. These claims have been counted separately.

The requested customer concern codes and the warranty condition codes are provided in Appendix B.

Requests for "goodwill, field, or zone adjustments" received by Ford to date that relate to the alleged defect in the subject vehicles that were not honored, if any, would be included in the MORS reports identified above in response to Request 3. Requests for goodwill that were honored, if any, are contained in the warranty data provided.

Ford notes that in a May 19, 2004 phone conversation with ODI representatives, the agency removed the stipulation that Ford include only claims that identify the accelerator pedal (AP)

assembly part number as the causal part on this request. As a result, Ford is providing all claims that it considers responsive even if other parts are identified as the "causal part."

Request 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, 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.

Answer

The search criteria used by Ford to identify responsive claims is described in the AWS section of Appendix B.

All 2001 through 2003 model year F- Series Super Duty and Excursion vehicles include the following warranty coverages:

- 36 month/36,000 miles; bumper-to-bumper
- 60 month/50,000 miles; safety restraint system
- 60 month/unlimited mileage; corrosion (perforation only)
- 60 month/100,000 miles; limited PowerStroke diesel engine

Request 8

Provide the most current engineering drawings for each and every design version (fixed part numbers 1C34-9F836-xx and 3C44-9F836-xx, and PAP part numbers 2C34-9F836-xx and 3C34-9F836-xx, and any others) of the subject component that was either installed on the subject vehicles as original equipment, or sold as a service replacement component for use on the subject vehicles. If the drawings are supplied in paper form, ensure the print size and quality is sufficient to be fully legible. If the drawings are supplied electronically (ODI's preference), ensure they are in a format that ODI will be able to utilize (e. g., Adobe PDF).

Answer

Ford is providing the requested part drawing files for part numbers 1C34-9F836-BA, 1C34-9F836-BB, 3C44-9F836-AC, 3C44-9F836-AD, 2C34-9F836-DD, 2C34-9F836-DE, 2C34-9F836-DF, 2C34-9F836-DG, 3C34-9F836-BD, and 3C34-9F836-BE, as .tif files, under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix G.

Request 9

Provide the most current engineering specification documents for each and every design version (fixed part numbers 1C34-9F836-xx and 3C44-9F836-xx, and PAP part numbers 2C34-9F836-xx and 3C34-9F836-xx, and any others) of the subject components that were

either installed on the subject vehicles as original equipment, or sold as a service replacement component for use on the subject vehicles. If the documents are supplied electronically (ODI's preference), ensure they are in a format the agency will be able to utilize (e. g., Adobe PDF, MS Word).

Answer

Ford is providing the requested engineering specifications ES1C34-9F836-BA (for part numbers 1C34-9F836-BA and BB), ESF6TA-9F836-AA (for part numbers 2C34-9F836-DD, DE. DF, and DG), and ES3W43-9F836-AA (for part numbers 3C34-9F836-BD, BE and 3C44-9F836-AC, AD, BE), as tg4 files, under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix G.

Request 10

Provide the most current failure mode and effect analysis documents for each and every design version (fixed part numbers 1C34-9F836-xx and 3C44-9F836-xx, and PAP part numbers 2C34-9F836-xx and 3C34-9F836-xx, and any others) of the subject components that were either installed on the subject vehicles as original equipment, or sold as a service replacement component for use on the subject vehicles. If the documents are supplied electronically (ODI's preference), ensure they are in a format the agency will be able to utilize (e. g., Adobe PDF, MS Word).

Answer

Ford is providing the requested Design Failure Mode and Effects Analyses (DFMEAs) for the "3-track" PAP, "3-track" fixed pedal, "2-track" PAP, and "2-track" fixed pedal under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix G.

Request 11

State by component part number how to determine the date of manufacture of each design version (fixed part numbers 1C34-9F836-xx and 3C44-9F836-xx, and PAP part numbers 2C34-9F836-xx and 3C34-9F836-xx, and any others) of the subject component. If the information is visible on the component (on a label or otherwise inscribed), include any diagrams required, and also include any decoding values that might be required.

Answer

For the fixed pedals (1C34-9F836-xx and 3C44-9F836-xx), the date of manufacture is found on the label affixed to the plastic cover on the top of the pedal assembly. For the PAP assembly the manufacture date code is found on the label on the plastic cover over the sensor housing.

The manufacture date code on the PAP assembly is interpreted as follows: The first two characters are used to designate the year (e.g. G2 = 2002), the third character (alpha) designates the month (e.g. H = August), and the next two numeric characters designate the day of that particular month.

Request 12

For the model year 2001 through 2003 7.3L equipped subject vehicles, describe in detail, and from an engineering and technical point of view, the relationships between the displacement or rotation of the accelerator pedal, the output voltage of the AP sensor potentiometer signal, the output voltage of the AP sensor idle validation sensor (IVS) signal, and the power production of the engine. Produce a chart or table that relates potentiometer output voltage to engine power production, with the idle state representing the minimum power output condition (0 %) and include applicable tolerance information. State specifically the potentiometer output voltage required to achieve a full engine power output condition (100%) and include applicable tolerance information.

Answer

Ford is providing the requested information under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix L.

Request 13

Regarding the fixed, 7.3L subject component design levels represented by production part numbers 1C34-9F836-BA (design level 1, or DL1) and 1C34-9F836-BB (DL2) and the design changes referred to in line 5 of Appendix L of Ford's IR response to PE03-044 dated December 2, 2003:

a. State Ford's internal identification number for the change referred to in Appendix L;
b. Provide copies of the documentation (change requests and approvals, engineering sign-offs, supplier notification, etc.) related to the implementation of the design change;
c. State by vehicle manufacturing location the date the DL2 component was first introduced into vehicle production;
d. State by vehicle manufacturing location whether the change from DL1 to DL2 components occurred consecutively on a specific date, or if it occurred over a longer period of time and state the period;
e. Describe each and any way that the DL1 and DL2 components can be visually distinguished from each other (part number labeling, dimensional/sub component differences, identifying marks, etc);
f. Appendix L states, "Part didn't pass required overload test in ES," as the reason the design change to DL2 components was implemented. Explain this statement in greater detail (which specific engineering requirements were not passed) and state whether there were any other reasons that lead Ford to make the DL2 change;
g. State how Ford first became aware that the overload related engineering specifications of the DL1 components were not being met;
h. State the date when Ford first became aware that the overload engineering specifications for the DL1 component were not being met;
i. Appendix L states, "Revised lever arm to improve overload capability," as the description of the design change. Describe in detail, and from an engineering and technical point of view, what the specific design differences are between the DL1 and DL2 components;
j. Describe in detail, and from an engineering and technical point of view, how the wide open throttle stop of the DL1 and DL2 components is intended to function;
k. State the design intent output voltage of the AP sensor potentiometer signal, and the acceptable voltage tolerance range, for the DL1 and DL2 components when the pedal pad has been depressed to the wide open throttle stop position (as described above);

l. Describe in detail, and from an engineering and technical point of view, the failure mechanism(s) and the failure mode(s) that occurs when a pedal overload, which results in the engine going to the idle state, is applied to a DL1 component;
m. State whether the DL2 components meet all of Ford's engineering specifications for overload, and state any specifications it does not meet;
n. State the date that the DL2 component was first available as a service replacement component;
o. State whether DL1 components are presently being sold by Ford as service components, and if not, the last date such components were sold; and
p. State whether pedal overload failures of a DL1 or DL2 component, that occur in low numbers (5 or 10 events) and at a force level lower than that stipulated in the engineering specification, have any permanent detrimental effect on the operation of the AP assembly and/or the AP position sensor.

Answer

Ford is providing the requested information under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix L.

Request 14

Regarding the fixed, 7.3L subject component design level represented by production part number 1C34-9F836-BA, and any engineering assessment or testing that Ford may have performed to quantify the pedal overload forces this component is capable of withstanding, please:

a. Produce a copy of the results of any such testing (specifically the results related to the forces involved in pedal overload);
b. Describe the test method used to evaluate the AP(s) for pedal overload, including the test equipment used, the production date of the AP(s) tested, the history of the AP(s) tested (was the test component newly manufactured, or a component returned from field service), and the orientation (location and direction) of the applied pedal force;
c. State the average force that was determined to cause a pedal overload failure, the number of tests performed, and the standard deviation of the force based on these tests;
d. State the minimum force that was found to cause a pedal overload failure; and
e. State what effect, if any, pedal force orientation had on the results.

Answer

a. Ford does not believe that it is in possession of the requested test results. However, to the extent that such testing is in Ford's possession, it would be contained in the documents produced in response to other requests in this EA and in those produced in response to PE03-044.
b. The test method is described in the section III.3.10 of ES1C34 9F836 BA (ES provided). The testing was performed on production components pulled from the assembly line in approximately July/August 2002.
c. See response to "a".
d. See response to "a".
e. Pedal overload is only applied in one direction per Tests 3 and 4 of section III.3.10 of ES1C34 9F836 BA.

Request 15

For the model year 2001 through 2003 7.3L equipped subject vehicles, describe in detail, and from an engineering and technical point of view, the diagnostic and fault detection routines used to monitor the operation and functionality of the AP sensor, and that are used to set AP sensor related diagnostic fault codes in diagnostic memory (including but not limited to codes P0220 and P0221). Produce a list of the diagnostic fault codes which are related to or involve the AP, and for each such code:

a. State which electrical signals are monitored and/or compared;
b. State the threshold voltage(s) and time parameter(s) of the monitored and/or compared signals that are required to set the diagnostic fault code;
c. State the time rate (frequency) that the signals are sampled and/or compared by the diagnostic routine;
d. State whether detection of the fault causes the engine to return to an idle state;
e. State whether normal ETC functionality can be re-established in the event the diagnostic routine determines the fault is no longer present;
f. State the specific sequence of events that must be undertaken by the vehicle operator to re-establish normal ETC functionality in the event the diagnostic routine determines the fault is no longer present;
g. State whether the diagnostic fault code can be extracted from diagnostic memory using commercially available, non-Ford sourced, diagnostic test equipment (OBD II scan tool) that is compliant with the J1962 SAE standard;
h. State whether detection of the fault causes a malfunction indication light (MIL) and/or the "Service Engine Soon" (SES) light to illuminate on the instrument panel;
i. State whether the MIL and or SES lights remain illuminated, or subsequently extinguishes, in the event the diagnostic routine determines the fault is no longer present (both for the current drive cycle and for any subsequent drive cycles); and
j. State the period of time the diagnostic fault code remains accessible in diagnostic memory for extraction using diagnostic equipment.

Answer

Ford is providing the requested information under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix L.

Request 16

Regarding the fixed, 6.0L subject component design levels represented by production part numbers 3C44-9F836-AC (design level 3, or DL3) and 3C44-9F836-AD (DL4) and the design changes referred to in line 13 of Appendix L of Ford's IR response to PE03-044 dated December 2, 2003:

a. State Ford's internal identification number for the change referred to in Appendix L;
b. Describe each and any way that the DL3 and DL4 components can be visually distinguished from each other (part number labeling, dimensional/sub component differences, identifying marks, etc);
c. Appendix L states, "Original design was supposed to contact dash panel," as the reason the design change to DL4 components was implemented. Explain this statement in greater detail and state whether there were any other reasons that lead Ford to make the DL4 change;

d. Appendix L states, "Revised bracket to contact dash panel," as the description of the design change. Describe in detail, and from an engineering and technical point of view, what the specific design differences are between the DL3 and DL4 components; and
e. State whether the DL3 and DL4 components meet all of Ford's engineering specifications for overload, and state any specifications that are not met.

Answer

Ford is providing the requested information under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix L.

Request 17

Regarding the fixed, 6.0L subject component design levels represented by production part numbers 3C44-9F836-AC (design level 3, or DL3) and 3C44-9F836-AD (DL4) and the photograph included in the enclosed CD-ROM (titled "3C44-9F836-AA.JPG"): ODI notes that the upper end of the pedal lever (opposite the end with the pedal pad attached) does not utilize the forked design (with both closed and wide open throttle stop capability) that has been found on some DL1 and DL2 design level components. Regarding the enclose photograph, the DL3 and DL4 components, and the forked pedal lever design:

a. State whether the component in the photograph is of the DL3 or DL4 design type;
b. State whether the number shown on the label (3C44-9F836-AA) is the component part number;
c. Describe in detail, and from an engineering and technical point of view, how the wide open throttle stop of the DL3 and DL4 components is intended to function;
d. State whether all DL3 and DL4 components use the non-forked pedal lever design; and
e. State whether the non-forked pedal lever design is unique to the DL3 and DL4 components, or if it has ever been used on the DL1 and DL2 components (as either OE or service replacement components).

Answer

a. The pedal part number referenced in the picture is 3C44 9F836 AA. This was a pre-production design and never released for production.
b. The part number 3C44 9F836 AA is the component part number.
c. The wide-open throttle stops at the idle pin and bracket of the production released DL3 and DL4 pedals are intended to distribute loads on both sides of the lever axis to limit the rotation of the lever arm during an overload condition (similar to the DL2 design).
d. All DL3 and DL4 accelerator pedals use the forked pedal lever design.
e. The non-forked lever design in component 3C44 9F836 AA was never released for production. Both the DL3 and DL4 pedals use the forked pedal lever design.

Request 18

For any such items not supplied in Ford's PE03-044 IR response: 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.

Answer

For purposes of identifying communications to dealers, zone office, or field offices pertaining, at least in part, to the alleged defect in the subject vehicles, Ford has reviewed the following FCSD databases and files: The On-Line Automotive Service Information System (OASIS) containing Technical Service Bulletins (TSBs) and Special Service Messages (SSMs); Internal Service Messages (ISMs) contained in the 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, Internal Service Messages, and the Field Review Committee files and the search criteria used are provided in Appendix B.

OASIS Messages: Ford has not identified additional SSMs or TSBs that may relate to the alleged defect in the subject vehicles.

Internal Service Messages: Ford has not identified any ISMs that may relate to the alleged defect.

Field Review Committee: Ford has not identified additional field service action communications that may relate to the alleged defect in the subject vehicles.

Request 19

For any such actions not supplied in Ford's PE03-044 IR response, or any new or other actions not supplied in response to this letter: 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.

Answer

Ford has developed specific, recognized processes for identifying, investigating, and assessing potential safety concerns in Ford products. Ford interprets the agency's request as seeking the documents resulting from such processes or actions, such as documents from Ford's Critical Concern Review Group (CCRG) and Field Review Committee (FRC), if any, and final field service action evaluation papers (14 D's and 8 D's). Ford has conducted a reasonably diligent search for such documents that it is producing under separate cover to the agency's Office of

Chief Counsel, along with a request for confidential treatment on the grounds that such items contain commercially sensitive business information and/or trade secrets. Such documents are provided in Appendices G and H. Ford is neither conducting nor planning to conduct any additional investigations at this time.

Further, Ford is submitting voluntarily additional documents that may assist in the agency's analysis of this matter. Copies of such documents that are not customarily disclosed outside of Ford will be submitted under separate cover with a request for confidentiality to the agency's Office of Chief Counsel in Appendix I.

Documents for which Ford is not requesting confidentiality are included in Appendix J.

Ford is not producing documents responsive to this request that are protected from disclosure by attorney-client privilege, work-product doctrine or other applicable immunity. Documents protected from disclosure on these bases are described in a privilege log contained in Appendix K.

Request 20

For any such modifications not supplied in Ford's PE03-044 IR response, or any new or other modifications not supplied in response to this letter: 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, 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 numbers (service and engineering) of the original component;
e. The part number (service and engineering) 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 was made available as a service component; and
h. Whether the modified component can be interchanged with earlier production components.

Answer

There are no modifications to the subject component beyond those discussed in Ford's response to PE03-044.

Subsequent to Ford's receipt of this information request, the agency requested clarification on a change to the dash panel insulator in the area of the accelerator pedal. On June 11 2004 the agency supplied Ford with photos of two F-Super Duty vehicles. One picture of the insulator showed the pedal WOT bracket resting on the insulator. The second picture showed an F Super Duty vehicle with a cut out around the WOT bracket allowing contact with the dash panel.

Ford's investigation showed that on Ford's internal change number C11396543 (dated 7/29/02), the cut out was added for Job#1 2003.25 (6.0L diesel program) to "Give clearance for fixed

diesel pedal structural contact point". The change was initiated to eliminate an interference condition between the "3-track" fixed pedal WOT bracket and insulator material.

Request 21

Produce an updated response which states the number of subject components that Ford has sold that may be used in the subject vehicles by component 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.

Answer

As the agency is aware, Ford service parts are sold in the U.S. to authorized Ford and Lincoln-Mercury dealers. Ford has no means by which to determine how many of the parts were actually installed on vehicles, the vehicle model on which a particular part was installed, or the reason that the installation was made.

Ford is providing in electronic form in Appendix M (file: Service Part Sales FINAL.doc) on the enclosed CD the total number of Ford service replacement fixed and adjustable accelerator pedal assemblies for the 2001 through 2003 model year F-Super Duty and Excursion vehicles by part number and calendar year of sale. Service part sales by month are also provided where available. The supplier name and contact information may be found in Appendix M of Ford's response to PE03-044.

Based on information contained in Ford's Materials Management Process System that maintains parts sales and inventory information, none of the parts identified are sold in any other service kits, and no kits have been developed or released by Ford to service the subject components.

Request 22

For each of the subject component types (PAP and fixed), 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 risk to motor vehicle safety that it poses;
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.

Answer

In response to the opening of EA04-006, Ford continued its investigation (begun with PE03-044) into allegations of electronic throttle control (ETC) pedal malfunction through analysis of responsive warranty claims of owner reports, field reports, and customer paid claims, and VOQs and through analysis of allegations of accidents, injuries, and fatalities in responsive reports.

This investigation and the materials provided in response to this inquiry do not demonstrate the existence of a safety-related defect in ETC pedals in these vehicles.

One of the factors that may confound understanding of the performance of the ETC is that the pedal assembly is often replaced under warranty even though it is functioning properly. A review of warranty data clearly shows that each warranty replacement of the pedal assembly cannot be considered a failure of the pedal assembly. Ford's analysis of the data gathered during this investigation has identified many potential conditions that result in ETC accelerator pedal system replacement on the subject vehicles; the conditions may or may not include a verifiable malfunction of the accelerator pedal assembly and may or may not relate to engine performance. For example, the assembly may be replaced if a customer believes it is making noise or does not have a smooth feel, neither of which affects engine speed control.

Ford's analysis of warranty claims indicates that accelerator pedals may also be replaced for a variety of engine performance reasons, sometimes appropriately and other times not. While good warranty practice requires a faithful examination of diagnostic codes prior to replacing PCM monitored components, a diagnostic scan for accelerator pedal codes is often not referenced in warranty reports. Through review of warranty claims, we have verified that accelerator pedals are often inappropriately replaced to resolve such concerns as no start, rough idle, engine surging, and lack of power.

Examples include:

A warranty claim involving VIN 1FTNX20F01E[redacted] a 2001 model year F250, states "GAS PEDAL HAS VIB ABOVE 50 MPH". No fault codes related to the ETC were noted but the accelerator pedal was replaced. Over the next 500 miles, the customer returned twice with the same complaint. Subsequently, tires were replaced and wheels balanced. No further warranty was performed for this concern.

A warranty claim involving VIN 1FTNF20P03[redacted] a 2003 model year F250, states "CHECK HESITATES ON ACCEL". The accelerator pedal was replaced. There was no indication that PCM diagnostics were run. Approximately 1,600 miles later the customer returned with the following comment: "CHECK TRUCK HAS SLOW ACCEL". The PCM was recalibrated on that occasion, with no pedal replacement. There were no subsequent comments for acceleration concerns in the warranty records.

A warranty claim involving VIN 1FTSW31F72E[redacted] a 2003 model year F350, (and EA04-006 VOQ) reported an unresponsive, or dead, pedal four times between August 9, 2003 and September 22, 2003. During the first two service events, the technician replaced the pedal with an FSA 03B03 level pedal. The customer returned to the dealer with the same concern twice more, receiving next, a new PCM, and finally a repair to the wiring harness and connector. The customer did not return to the dealer with another pedal complaint after the wiring harness was repaired.

Ford acknowledges that many of the AWS claims carry a diagnostic code consistent with a fault in the pedal signal received by the PCM. The fault code may indicate a permanent or intermittent malfunction of the pedal assembly which may cause the engine to go to idle. Engineering analysis has determined that conditions such as over travel of the pedal (i.e. excessive force on the pedal pad) can interrupt the pedal voltage signal on certain design level pedals, and put the engine into an idle state. In most cases, these conditions are intermittent, with full pedal function restored immediately when the pedal is returned to the idle position.

Other causal factors may generate fault codes that are unrelated to the accelerator pedal assembly. For example, wire chafing in the wiring harness or damage to the accelerator pedal circuits at the connector (SSM 16913) may result in fault codes. There is also an engineered condition on the 7.3L diesel where, if the pedal is depressed during start up, the PCM will prevent rpm increase until the pedal is returned to the idle position. Similarly at start up, the 6.0L diesel will not accept any condition, other than idle, regardless of the pedal position. It takes movement of the pedal subsequent to start up to increase rpm above idle. These conditions are intended operations of the system to prevent engine damage during start up and do not produce fault codes; however, an operator may interpret such an occurrence as an intermittent malfunction.

Another factor that complicates this investigation is Ford's prior field service action that already has replaced many of the pedal assemblies about which customers had early complaints. It would be inaccurate to consider those early complaints as indicative of the current performance of those vehicles. As the agency is aware, Ford initiated FSA 03B03, in February 2003, to address a high rate of complaints on a certain group of 7.3L diesel engine vehicles equipped with adjustable ETC pedals. The investigation that led up to the field action identified grease migration from the idle validation sensor (IVS) to the potentiometer on certain 2002 and 2003 F-Series Super Duty and Excursion vehicles equipped with the "2-track" system. The grease migration, over time, could corrupt the voltage signal to the powertrain control module (PCM), causing the system to return to idle. At the time the action was initiated, the AWS R/1000 was 120 R/1000 at 12 months in service (MIS). Ford felt a customer satisfaction program was warranted based on this rate. Because the non-migrating grease pedal was installed (in production) on only a small number of vehicles before launch of the "3-track" design, an R/1000 value on the non-migrating design would not be statistically significant. Ford notes that approximately 97 percent of the responsive PAP AWS claims occurred on vehicles equipped with the pre-FSA 03B03 pedal. In addition, Ford has analyzed the AWS system for repeat repairs and found only a very small number of vehicles that may have had a repeat repair after receiving the non-migrating grease pedal in service. Ford believes that the FSA properly addressed the concern and the performance of the adjustable pedals subsequent to the FSA is at the expected level for this type of design.

Ford notes that nine of the 14 VOQs supplied by NHTSA alleging a defect in the accelerator pedal involve PAP equipped vehicles, and eight of these concerned "2-track" PAP malfunctions prior to 03B03 pedal replacement [VINS 1FTNW21F72E[redacted] 1FTSW31F32E[redacted] 1FTNX20FX3E[redacted] 1FTNW21FX2E[redacted] 1FMSU43F12E[redacted] 1FMSU43F22E[redacted] 1FMSU43F22E[redacted] 1FTNW20F02E[redacted] The two alleged minor accidents (agency provided VOQs) in this PAP population were described, by the VOQ originators, as the vehicle being "rear ended" because the subject vehicle failed to accelerate from a stop after idling at a traffic light. A ninth PAP vehicle, and the only PAP vehicle to report an incident with the 03B03 level pedal [VIN 1FTSW31F72E[redacted] reported an unresponsive, or dead, pedal four times in late summer 2003. As reported earlier in this response, the concern was resolved on the fourth service visit with a repair to the wiring harness.
Ford searched for allegations of accidents, injuries, or fatalities in the responsive reports that are associated with PAP systems on the subject vehicles. A search of all claims and review of VOQs revealed five reports alleging accidents, with two alleging minor injuries. All allegations of accidents involved the 2-track pedal system and, except for VIN 1FTSW31F72E[redacted] discussed above, all alleged accidents occurred before FSA 03B03 pedal replacements.

Ford's investigation into the fixed pedal design ("2-track" system), for the 7.3L diesel vehicles, identified a repair rate of approximately 12 R/1000 at 24 MIS, based on responsive AWS data.

This rate does not signify the existence of a safety defect. Field data consistently shows that malfunction of an ETC accelerator pedal results in the throttle returning to idle, a condition mandated by FMVSS 124. Furthermore, cycling the pedal to the idle position, as the driver is likely to do as the engine begins to lose power, typically restores normal function.

Five of the 14 VOQs referenced above involve vehicles equipped with the "2-track" fixed pedal. The only VOQ fixed pedal vehicle alleging an accident (Hudson) will be addressed below.

Ford also searched for allegations of accidents, injuries, or fatalities in the responsive reports that involve the subject vehicles with the fixed pedal system. A search of all claims revealed only one claim of an accident (Hudson).

With respect to the Hudson case, the driver of the vehicle attempted to turn left in front of oncoming traffic and was issued a citation for failure to yield. The damaged vehicle was impounded for approximately five months before repair. The scope of the engine and body work done during the vehicle repairs suggest that the battery of the vehicle was disconnected, which would have cleared any diagnostic codes that may have been present at the time of the accident. After repairs were made, and before the vehicle was placed back in service, there was a report of an alleged failure to accelerate upon depressing the accelerator pedal. A service technician at the dealership discovered a malfunction code that indicated a problem in the electrical circuit that included, among other things, the circuitry for the pedal assembly unit. Because of the loss of any stored PCM codes that may have existed prior to the accident and the extensive vehicle front end damage resulting from the accident, it is not presently known whether the diagnostic code indicating a possible malfunction in the accelerator pedal assembly was present before the accident, or if such a diagnostic code was the result of damage sustained in the accident.

For the 2003 model year 6.0L engine vehicles, Ford released new "3-track" design pedal assemblies. The warranty repair rate of the PAP assembly on that engine is approximately 6 R/1000 at 12 MIS, and for the fixed pedal it is approximately 4 R/1000 at 12 MIS. With a low repair rate and absence of customer complaints, Ford believes the "3-track" accelerator pedals (both fixed and adjustable) in these vehicles are performing well.

Ford concludes that there is a low failure rate in post FSA 03B03 PAP assemblies and both "3-track" accelerator pedals (fixed and PAP). Additionally, there is a lack of responsive accidents and injuries associated with all ETC pedals ("2-track" and "3-track"). While the number of claims and reports for the "2-track" fixed pedal is not as low as the "3-track" design, the rate alone does not provide evidence of a safety defect.

After thoughtful consideration, Ford believes that ETC pedals, both "2-track" and "3-track", fixed and adjustable, perform in an acceptable manner and always to FMVSS requirements. The lack of accidents and injuries allegedly related to this investigation confirm that the alleged accelerator pedal malfunction does not pose an unreasonable risk to safety.

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