

Ford Motor Company

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OFFICE OF DEFECTS
INVESTIGATION

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

October 10, 2002

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

Dear Ms. DeMeter:

Subject: EA02-018:NSA-12fad

This is in response to the agency's August 29, 2002 letter concerning your review of Ford safety recall 01S05 and allegations of tire valve stem failures on other 1999 through 2001 Ford trucks and vans, incomplete vehicles, and chassis with a GVWR over 8,500 pounds. Recall 01S05 addressed the possibility that some 1999 through 2001 F450/550 chassis cab vehicles, equipped with commercial truck tires, may have been produced with damaged tire valve stems during installation of the valve stems from the beginning of the 1999 model year through October 21, 2000. Because of the particular characteristics of the steel cord sidewall commercial truck tires used on the recalled vehicles, as with other tires constructed with steel cord sidewalls, permanent damage to the tire may occur if it is subjected to continued use in an under inflated condition. The recall was conducted because the damaged steel cords could cause a sidewall zipper rupture while the tire was being serviced or inflated, resulting in a rapid loss of air pressure that could injure a person near the tire. It was not conducted due to a risk to safety during vehicle operation.

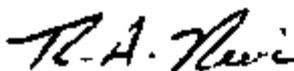
The occasional valve stem damage which prompted recall 01S05 occurred during the wheel/tire assembly process at the Kentucky Truck Plant (KTP) and was not related to a defect in the design or manufacture of the valve stems. E-Series vehicles (including those defined as part of the subject vehicles in your inquiry), which are produced at a different plant using a different process for stem installation, were and are not affected by the systemic valve stem damage issue that was a factor in the initiation of 01S05. None of the other subject F-Series Super Duty products produced at KTP or Econoline based vehicles or chassis are equipped with the commercial steel sidewall type tires used on the F450/550 and, therefore, do not have the possible risk of injury during tire servicing that 01S05 addressed.

The TR 600 HP (High Pressure) type valve stems used on the subject vehicles are industry standard type designs approved by the Tire and Rim Manufacturers Association (TRMA) for vehicle applications such as the subject vehicles and are not a "defective design" or inadequate for use in the subject vehicles. The entire automotive industry uses the TRMA recommendations for valve stem usage.

Ford believes that the materials and information presented in our March 15, 2002 response and in the Attachment and Appendices to this letter demonstrate Ford took the appropriate action (01S05) concerning this subject. The virtual lack of reports concerning alleged incidents of vehicles striking other vehicles or other objects in the approximately 800,000 subject vehicles supports Ford's opinion that there is no unreasonable risk to motor vehicle safety due to the occasional valve stem failures in the subject vehicles.

If you have any questions, please contact me.

Sincerely,



James P. Vondale

Attachment

FORD MOTOR COMPANY'S RESPONSE TO EA02-018

Ford Motor Company (Ford) 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 every effort to provide thorough and accurate information, and we would be pleased to meet with agency personnel to discuss any aspect of this investigation.

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 understands the scope of this request to include 1999-2001 model year F-Series Super Duty F350, F450, F550, including chassis cab and stripped chassis, E350 and E450, including vans, wagons, cut-aways and stripped chassis vehicles ("subject vehicles") and that the "alleged defect" concerns a failure, malfunction, or other unsatisfactory performance of a tire valve, regardless of cause, resulting in any loss of air pressure from the tire. Ford has construed this request as pertaining to vehicles manufactured for sale in the United States, its protectorates and territories (except for our response to your Request 14).

Answers to your specific questions are set forth below. As requested, after each numeric designation, we have set forth verbatim the request for information, followed by our response. Unless otherwise stated, Ford has undertaken to provide responsive documents dated up to and including August 29, 2002, the date of the inquiry. Ford has searched business units and/or affiliates within the following offices for responsive documents: Environmental and Safety Engineering, Ford Customer Service Division, Product Engineering, Quality, Kentucky Truck Plant and the Office of the General Counsel. We assume that this request does not seek documents related to the gathering of information or the preparation of Ford's response to RQ02-002.

Request 1

Update the information Ford provided in its March 15, 2002 response to questions 3 and 5 of the January 25, 2002 information request issued as part of RQ02-002 (hereinafter referred to as "Ford's response to the RQIR"). This includes all AWS, CQIS, and MORS reports, and all other such documents received by Ford.

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), and claim and lawsuit information maintained by Ford's Office of the General Counsel (OGC).

System descriptions and the criteria used to search the FCSD owner report and field report systems are provided in Appendix A-1 (file: 2002-10-10_Appendix_A-1) and Appendix A-2 (file: 2002-10-10_Appendix_A-2), respectively on the enclosed CD. A description of the Intensified Customer Concern Definition (ICCD) system and the criteria used to search it are provided in Appendix A-3 (file: 2002-10-10_Appendix_A-3) on the enclosed CD.

Reports obtained from the searches and electronic reviews described in Appendices A-1 and A-2 were manually reviewed to determine if they relate to the alleged defect, with each related report categorized as follows:

- Category A:** Reports that allege a tire valve stem failure such as a leak, crack, tear or blow out.
- Category A1:** Reports that allege a Category A tire valve stem failure resulted in the vehicle being involved in an accident, an injury occurred, or a tire failure such as addressed by recall 01S05 (sidewall zipper failure) occurred during maintenance service. We have not considered damage to the vehicle which allegedly experienced a valve stem issue to be an "accident" if damage to the vehicle occurred solely from a tire failure, such as damage to a fender resulting from tire contact with the fender.
- Category A2:** Reports that allege a Category A tire valve stem failure and contain the term "accident" but are unclear as to whether the vehicle actually struck something. These reports actually may be describing vehicle damage as a result of the valve stem failure as an "accident."
- Category A3:** Reports that allege a Category A tire valve stem failure during tire inflation but not of the type outlined by recall 01S05.
- Category B:** Reports that are ambiguous as to whether they fully meet the alleged defect criteria. Based on Ford's engineering judgment, the information in these reports is insufficient to support a determination that they pertain to the alleged defect.
- Category B1:** Reports that are ambiguous as to whether they fully meet the alleged defect criteria that also involve a vehicle "accident" or an "injury."

Owner Reports: In addition to those provided in our March 15, 2002 response, the search and review of the Ford Master Owner Relations Systems (MORS) database records, as described in Appendix A-1, identified the following number of responses non-duplicative owner reports:

177 Category A, (for all the subject vehicle model years) no Category A1, three Category A2, no Category A3.

Copies of these owner reports are provided in the MORS III portion of the electronic database contained in Appendix A-4 (file: 2002-10-10_Appendix_A-4) on the enclosed CD. The categorization of each report is identified in the "Category:" field.

When 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.

In the interest of responding promptly to this inquiry, Ford has not undertaken to gather the microfilm or electronic images related to these contacts because of the largely duplicative nature of the information contained in the microfilm and images, as well as the time and the burden associated with locating and producing those documents. The pertinent information related to those contacts generally would be included in the contact reports obtained from the MORS system. To the extent that those documents exist, they are reflected in the comments of MORS III contact reports. Upon request, Ford will attempt to locate any specific items that are of interest to the agency.

Within FCSD, there is also a Consumer Affairs Department that manages customer concerns that cannot be resolved by the Customer Relationship Center (CRC). Among other things, the Consumer Affairs Department has a section, known as "Litigation Prevention," that handles a variety of informal (i.e., non-litigation) claims, such as property damage claims of customers when those claims do not exceed \$10,000 and do not involve personal injury. Also, the Litigation Prevention section does not handle claims from insurance companies asserting subrogation rights arising out of payments made to insureds. The Litigation Prevention section has been centralized in the Consumer Affairs Department since 1995. Prior to that time, Litigation Prevention personnel operated on a regional basis. For matters that the Litigation Prevention section handles, there are typically paper files that reflect the handling, investigation and resolution of property damage claims. The claims, known as "Legal Contacts" within FCSD, are entered into the MORS database in the same manner that the CRC enters other customer communications into the MORS database. When a customer contact is designated as a Legal Contact, it is so indicated near the top of the MORS contact report. To the extent that responsive (i.e., unambiguous) MORS reports reflect that they are Legal Contacts, Ford has undertaken to gather the related files from the Litigation Prevention section and has provided copies of such files in Appendix A-5.

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 for the subject vehicles using part numbers 1007 (aluminum wheel), 1700 (valve stem) and 1015 (steel wheel) and the following word search words "tire", "valve", and "stem" to identify fleet test reports that may pertain to the alleged defect. Data was reviewed for allegations related to the alleged defect. Based on the foregoing search, Ford did not locate any responsive reports.

Field Reports: In responding to this information request, Ford electronically searched its Common Quality Indicator System (CQIS) as described in Appendix A-2. The reports obtained were manually reviewed to determine if they relate to the alleged defect. In addition to those provided in our March 15, 2002 response, this search and review of the Ford CQIS database records identified the following number of responsive

non-duplicative field reports that contain allegations that appear to relate to the alleged defect in accordance with the categories described above:

15 Category A, no Category A1, no Category A2, no Category A3.

Copies of these field reports are provided in the CQIS portion of the electronic database contained in Appendix A-4. The categorization of each report is identified in the "Category:" field. When 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.

Warranty Claims: In responding to this information request, Ford electronically searched its Analytical Warranty System (AWS) for all claims that included the base part number for the tire valve stem - 1700, steel wheel - 1007 and aluminum wheel - 1015 for 1999 through 2001 model year Ford vehicles, incomplete vehicles, and chassis with a GVWR over 8500 pounds identified as the "subject vehicles" by the agency. All claims meeting these criteria were then word searched for variations of the terms "valve," "stem," or "01S05." The resulting claims were then reviewed individually for allegations that may relate to the alleged defect. In addition to those provided in our March 15, 2002 response, this review identified

321 Category A, no Category A1, no Category A2, no Category A3.

Electronic copies of these claims are provided in Appendix A-4. The categorization of each report is identified in the "Category:" field. If 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.

Crashes or Incident Claims: For purposes of identifying alleged accidents or other incident claims, Ford has reviewed owner reports, field reports, warranty claims, lawsuits and claims. One Category A2 MORS report, VIN FDXF46F2YEB63548, alleges that a non-described accident occurred two years prior to the report date, and the owner is requesting reimbursement. (Ford has no further details concerning the incident nor any specific information concerning the alleged valve stem failure.) Two other Category A2 MORS reports, VINs 1FDAF57F3YED49335 and 1FDAF57F9YED67133, also associated with "Legal Contacts" provided in Appendix A-5 allege that one or both vehicles, owned by the same company, were involved in some type of incident described as an accident that caused the wheels to separate from the vehicle due to defective valve stems. (Ford is not aware of any reason that wheels would separate from a vehicle as a result of a valve stem failure.) No injuries or fatalities are alleged for any of the involved vehicles. Copies of these reports are provided in the electronic database contained in Appendix A-4.

Claims and Lawsuits: For the purpose of identifying incidents potentially involving the alleged defect, Ford has reviewed claim and lawsuit information maintained by Ford's Office of the General Counsel (OGC). Ford's OGC is responsible for handling product liability lawsuits, claims, and consumer breach of warranty lawsuits against the

Company. Based on a reasonable and diligent search, Ford did not locate any product liability lawsuits considered responsive to the alleged defect in addition to those provided in our March 15, 2002 response to RQ02-002. Additionally, no lawsuits or claims alleging consumer breach of warranty, or lawsuits considered vague or ambiguous to whether they meet the definition of the alleged defect have been located.

Request 2

Provide a summary table listing all crashes of subject vehicles involving the alleged defect. For each crash, provide the Ford Identification number(s) assigned to the matter, and identify the vehicle owner's name, address, and telephone number; the vehicle type (e.g., truck, bus, motorhome, etc.), model, model series code, model year, VIN, and build date of the vehicle, if built in a single stage, or build date of the incomplete vehicle, if the vehicle was built in two or more stages; the date, location, and mileage at which the crash occurred, the vehicle's date in service, the state or territory in which the vehicle was serviced, the tire valve manufacturer, the tire valve type (i.e., snap in, clamp on), if known, the problem claim code, the cold inflation pressure recommended by Ford (or by the vehicle's manufacturer if other than Ford) for the front and the rear tire of the vehicle, and the gross vehicle weight rating (GVWR) assigned to the vehicle. Provide all documents, Ford analyses, and Ford's opinion as to the cause of each crash.

Answer

To the extent the requested information is available, it is contained in the reports provided. Please refer to the database provided in Appendix A-4 and the "Legal Contacts" provided in Appendix A-5 for the "Accident" reports identified in the above response to Request 1.

Request 3

Update Ford's response to question 4 of the RQIR by providing any additional service or technical bulletins, advisories, or other communications pertaining to the alleged defect that were issued since or were not included in that response.

Answer

For purposes of identifying communications to dealers, zone offices, or field offices pertaining, at least in part, to the alleged defect in the subject vehicles and that are in addition to those supplied in our March 15, 2002 response, Ford has reviewed the following FCSD databases and files: The On-Line Automotive Service Information System (OASIS); Internal Service Messages contained in CQIS; and Field Review Committee 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 do not include this information in our answer.

OASIS Messages: FCSD's Current and Past Model Support staff is responsible for communicating a variety of vehicle and service information, such as warranty information for up to the past 360 days, Extended Service Plan part coverage information, and technical repair information, to North American Ford and Lincoln Mercury dealers. This information is communicated primarily through OASIS, which

serves as an electronic link between Ford Motor Company and the dealers. OASIS covers all North American Ford and Lincoln Mercury cars and trucks for the ten most current model years. Technical diagnostic and repair information on OASIS is contained in Special Service Messages (SSMs) and Technical Service Bulletin (TSBs) titles (the text of the TSB is not available on-line through OASIS). SSMs and TSB titles are coded in OASIS according to specific vehicle attributes (model year, vehicle type, engine code, vehicle identification number, or VIN) and an OASIS Service Code. The dealers with access to OASIS usually search for information on the database by entering a VIN and the applicable Service Codes. SSMs and TSB titles that become inactive or superseded continue to be accessible by Ford employees, but no longer are accessible by the dealers. Dealers also are able to determine the recalls applicable to a particular vehicle by searching a particular VIN in OASIS. Recall information available on OASIS cannot be searched by Service Codes.

In responding to this information request, Ford searched Global OASIS for active, inactive, and superseded TSB titles and SSMs applicable to the alleged defect for the subject vehicles. Global OASIS is not capable of performing electronic word searches, so the search results were reviewed manually to determine their applicability to the alleged defect in the subject vehicles. Based on this search, Ford has not identified any TSBs or SSMs that appear to relate to the alleged defect in the subject vehicles.

The OASIS database also contains Broadcast Messages. Typically, these messages are directed to all dealerships and are either notifications of new SSMs or announcements with non-technical information (for example, "the Dealer Hotline will be closed today"). Broadcast Messages cannot be searched by OASIS service codes and can be retrieved and searched only by their date.

Ford has not undertaken to search for Broadcast Messages that may relate to the alleged defect in the subject vehicles because of the associated burden, and we expect that any responsive information obtained with such a search generally would be non-substantive in nature or duplicative of the information obtained with the TSB title and SSM search described above.

Internal Service Messages: FCSD, as part of its technical support activities, maintains fleet and technical telephone "hotlines." During the early stages of Ford's efforts to identify and resolve potential vehicle concerns, hotline personnel may draft Internal Service Messages (ISMs) on CQIS for their internal use. The ISMs are assigned a CQIS "symptom code" or category that generally reflects the nature of the concern. An ISM can form the basis for an oral response over the technical hotline to an inquiry from an individual dealer or fleet technician. The ISMs, however, are not made available electronically to fleets and dealers. Although ISMs are not "issued" to dealers like OASIS messages, because Ford is construing this request broadly, we also searched for ISMs that may be related to the alleged defect in the subject vehicles.

In responding to this information request, Ford searched CQIS for ISMs dated from January 26, 2002 through August 29, 2002 for the subject vehicles with symptom codes: 306000, 306200 and 306705. The CQIS database in which the ISMs reside is not capable of performing word searches, so the search results were reviewed manually to determine their applicability to the alleged defect in the subject vehicles. No ISMs that appear to relate to the alleged defect in the subject vehicles were located in the search.

Field Review Committee: Ford's Field Review Committee reviews all potential field service actions, including safety recalls and owner notification programs and recommends appropriate actions to corporate management. A Vehicle Service & Programs representative serves as Secretary to the Field Review Committee. Following approval of a field service action, the Vehicle Service & Programs Office prepares and launches the action. A representative copy of the communication to Ford's dealers, fleets, zone offices, and field offices announcing the field service action is maintained in the Field Review Committee files. In responding to this information request, the Vehicle Service & Programs Office identified no updated field service action communications that may relate to the alleged defect in the subject vehicles.

Request 4

Provide copies of all communications with the supplier(s) of the subject tire valves that relate or potentially relate to the alleged defect.

Answer

Communications with the tire valve stem supplier, not previously located and, accordingly, not included in our March 15, 2002 response, are included in Appendix B in response to Request 6.

Request 5

Provide copies of all communications with the supplier(s) of the wheels and rims installed on the subject vehicle(s) that relate or potentially relate to the alleged defect.

Answer

Communications with the wheel and rim suppliers, not previously located and, accordingly, not included in our March 15, 2002 response, are included in Appendix B in response to Request 6.

Request 6

Update Ford's response to question 6 of the RQIR by providing any additional copies of documents reflecting any study, survey, inquiry, testing and/or investigation pertaining to the alleged defect in the subject vehicles that were generated or received since that response, or were not included in that response.

Answer

Ford is construing this request broadly and is providing not only studies, surveys, and investigations related to the alleged defect, but also notes, correspondence, and other communications that were located pursuant to a diligent update file search for the requested information. Ford is providing the responsive documentation in Appendix B.

Ford is redacting one document responsive to this request with document identification numbers EA02-018 0466M and EA02-018 0467M that contains information protected

from disclosure by the attorney-client privilege and/or work-product doctrine. This document also contains confidential financial information and is being submitted to the NHTSA Office of Chief Counsel under separate cover with Ford's Request for Confidentiality.

Request 7

Provide the following information regarding the rims equipped on the subject vehicles:

- a. Provide a table of available rims for the subject vehicles, identifying Ford's identification for the diameter and rim thickness of the tire valve hole in each rim.
- b. From the start of production of the subject vehicles, identify any changes to the design specifications for the diameter and rim thickness of the tire valve hole. State the reason(s) for each change, and the date on which each change was incorporated into production.

Answer

The table provided in Appendix C (file: 2002-10-10_Appendix_C) on the enclosed CD indicates wheel usage for the subject vehicles including the tire valve stem part number used for each wheel, the tire valve stem hole diameter and the rim thickness at the hole.

As stated in our March 15, 2002 response to Request No. 10, there have been no design specification changes for the size of the tire valve stem hole for any of the wheels used on the subject vehicles. Likewise, there have been no design specification changes for the thickness of the wheels at the tire valve stem hole.

Request 8

For each fleet purchaser identified in Ford's response to the RQIR, identify a contact person, the contact person's telephone number, the fleet purchaser's address, and the types and approximate number of vehicles sold to each fleet

Answer

Ford's March 15, 2002 response provided the information concerning fleet names and addresses and the types and approximate numbers of vehicles sold to each fleet. Ford has further searched its records in an attempt to provide reliable contact names and telephone numbers as requested. We have not located names or telephone numbers considered to be sufficiently accurate to be useful. Therefore, Ford cannot provide the additional requested information.

Request 9

In Ford's response to the RQIR on page WWR1 0387, in book 4 of 17 (see Attachment A), Ford provides a summary of fleets reporting valve stem concerns on subject vehicles as of October 5, 2000. Several fleets are listed, including Alabama Power, Entergy Mississippi, Georgia Power, Penske Truck Leasing, Reliant Energy in Texas, Texas Utilities, B&B Backhoe in Texas, Hercules Wire Rope & Sling, Sunstate

Equipment in Arizona, Myers tire supply in Arizona, and Earnhardt's Commercial Fleet in Arizona. Other documents submitted by Ford indicate that these companies experienced several incidents of tire valves popping out. Please provide the following related to the above document.

- a. Provide a table listing these companies and specifying the type of valve stems each company is currently using on its fleet of subject vehicles (e.g., Dilli TR-800-HP, rubber/metal combination 1 piece tire valve stem, all-metal 2-piece tire valve stem).
- b. If any of the fleets have installed all-metal valve stems on their vehicles, please provide a detailed explanation of the reasons for the changeover.
- c. State which changeovers, if any, were recommended by Ford, and the reason(s) for those recommendations.

Answer

The referenced summary attached to your August 20, 2002 request provides information as to the tire valve stem type being used for each of the fleets listed as of October 5, 2000. A search of records expected to contain additional information concerning these fleets and tire valve stem usage did not locate any additional information.

Several of the fleets listed on the referenced summary reportedly, through their own initiative, had installed two piece metal valve stems on their vehicles. Attachments C and E of your letter provide reasons given by Alabama Power Company and Georgia Power Company's decision to install metal valve stems. Your letter's Attachment D discusses Texas Utilities' possible change to the metal valve stem design that is confirmed by the summary list. Documents located during our update search concerning the issue are provided in Appendix B.

Request 10

State whether Ford is aware of any all-metal two-piece valve stem failures on any subject vehicles. If so, state the total number of such failures known to Ford, and for each failure, identify the model, model year, vehicle type, and GVWR of the vehicle on which the failure occurred, the wheel location (i.e., driver's side front, passenger's side rear) where the failure occurred, and the recommended cold inflation pressure specified by Ford (or by the vehicle's manufacturer if other than Ford) for the tire at the location where the failure occurred. Provide copies of all reports in Ford's possession or control, or of which it is otherwise aware, concerning each of these failures.

For reference, in Ford's March 16, 2002 response to the RQIR on page WWR1 0385, in book 4 of 17 (see Attachment B), Eric Alcock of Ford's FCSD-North American Fleet Service sent out an e-mail to approximately 40 Ford employees stating the following:

"If you know of a fleet that has replaced the Ford OEM wheel valve stems on their 1999-2000 F250-F550 Super Duty trucks with a 2 piece metal type valve stem. Please send me an e-mail regarding if the fleet has had any failures or not of the 2 piece metal type valve stem and the part number, if available of the stem they are using."

Answer

Files that would be likely to contain responses to the referenced March 15, 2002 e-mail, if any were received, have been searched. Copies of the located responsive documents are provided in Appendix B. None of the located documents appear to allege a failure of two-piece all-metal valve stems. However, we do not know whether the lack of documents means that no two-piece metal valve stem failures have occurred or simply that Ford was not made aware of any failures because the valve stems are not OEM.

Request 11

As evidenced in the submission from Ford in 2000, Ford believed the valve stem failures were caused by the automated insertion process during vehicle assembly at the plant. Several causes such as over insertion and inserting the stems into the wheel at an angle were considered. If this was the cause, when the valve stems were replaced with other combination rubber/metal valve stems in the field by Ford and the various fleets experiencing the problem, one would expect the problem not to reoccur. For example, in Ford's response to the RQIR on page VWR1 1800, in book 10 of 17 (see Attachment C), the valve stem problem that Alabama Power was having with its fleet of subject vehicles was discussed. In this document, Ford states that it replaced the valve stem with new ones that had been furnished by Dill that were hand installed so as to not over extend the stem..." Please answer the following questions concerning this action:

- a. Did any of these "hand installed" valve stems subsequently fail? If so, state the number of such failures that occurred, and for each failure, identify the model, model year, vehicle type, and GVWR of the vehicle on which the failure occurred, the wheel location (i.e., driver's side front, passenger's side rear) where the failure occurred, and the recommended cold inflation pressure specified by Ford (or by the vehicle's manufacturer if other than Ford) for the tire at the location where the failure occurred. Provide copies of all reports in Ford's possession or control, or of which it is otherwise aware, concerning each of these failures.
- b. State whether Alabama Power is still using the same tire valve stems as the ones supplied on its vehicles as original equipment, or whether the company has switched to an all-metal valve. Provide all supporting documentation.

Answer

Files likely to contain information concerning the referenced "hand installed" valve stems, if any such information exists, were searched for information concerning any failures that may have occurred on fleet vehicles which had had the valve stem replaced by "hand installed" operation. No reports of such failures were located.

The document identified as Attachment E provided with your August 29, 2002 inquiry (an Alabama Power document) indicates that the Alabama Power fleet was advised to replace the original equipment valve stems with two piece metal valve stems by their company's Fleet Service "Mandatory Action Bulletin" (Attachment E); Ford assumes that they complied. The referenced Attachment C document states Alabama Power was planning to issue such a service bulletin and that Georgia Power had already issued a

similar bulletin. Both documents provide reasons for the actions taken by the companies. Additional documents regarding Alabama Power that were located in our update file search are provided in Appendix B.

Request 12

In Ford's response to the RQIR, on page WWR1 2126, in book 12 of 17 (see Attachment D), the valve stem problem that Texas Utilities was having with its fleet of subject vehicles was discussed. Ford discusses its valve stem recommendation to one of its customers, Texas Utilities, that had been having trouble with valve stems popping out while driving. Texas Utilities expressed the following concerns: "The issue has grown into a safety hazard, these tires are losing the valve stem while traveling. With the way we use our vehicles in loaded conditions, it is difficult to control much like a blowout, not to mention the fact of ruining the tires this has become such an issue we feel we need to be concerned about safety first, and \$ second..." The document reflects that in response to these concerns, Ford North American Fleet Service, "along with Safety recommend[ed] replacement of rubber stems with metal truck stems." Please answer the following questions concerning this action:

- a. State whether Ford's Safety Office agreed to recommend the replacement of the rubber stems with metal tire valve stems. If so, state the reason(s) why the Safety Office agreed to this replacement and provide copies of all documents reflecting the Safety Office's consideration of this matter.
- b. State whether Ford reimbursed Texas Utilities for the replacements of the valve stems (and tires). If so, state the reason(s) why Ford agreed to this reimbursement, and provide copies of all documents reflecting its consideration of this matter.
- c. State whether Texas Utilities uses its fleet of subject vehicles in a manner that is significantly different from that of other Ford customers? If so, please describe the differences in detail.
- d. State whether there are any other instances in which Ford recommended that a customer switch to all-metal valve stems. If so, identify all customers to whom Ford made such a recommendation, the date or approximate date on which the recommendation was made, and the reasons why Ford made the recommendation.
- e. Explain in detail the reasons why Ford would recommend all metal valve stems to specific fleets on a case by case basis, instead of conducting a safety recall to replace the valve stems on all similar vehicles in service?

Answer

The document identified as Attachment D is an e-mail from one Ford employee to another Ford employee that was used to forward information obtained from Texas Utilities in two separate e-mails to Ford. The reference to "safety" in the first of the two e-mails is not a reference to Ford's Safety Office, but apparently refers to a group or department of the Texas Utilities. The decision to change to the metal type valve stems was made by Texas Utilities. Ford's Safety Office did not agree to replacement of the rubber valve stems with metal stems.

Files that would be likely to contain records of any reimbursement to Texas Utilities for the subject issue were searched. No such record that summarized or identified such a

reimbursement was located. If reimbursements were made on an individual basis through the normal Ford warranty system, they would be included in our responses to your requests for warranty claims provided in response to Request 1 of this inquiry or in our March 15, 2002 response.

Ford is not in a position to compare how the Texas Utilities' fleet of vehicles are used in comparison to the vehicles of other owners or fleets.

As stated above, the information provided in the referenced document is from e-mail received from Texas Utilities, and the decision to replace the original production valve stems on their fleet of vehicles was not based on a recommendation from Ford. If individual instances of a Ford representative recommending replacement of the original valve stems with metal type stems to fleets occurred, we are not aware of those recommendations and they are not reflected in our records. Ford also notes that our March 15, 2002 response to the agency's January 25, 2002 inquiry Request No. 4 provided internal service messages that provided instructions to the dealer that a metal valve stem can be used in place of the original part. As stated in the March 15, response, the suggestion to use a metal valve stem was made, in part, because of requests by our customers. Instances of this recommendation would be documented in the individual field reports provided in response to your requests for owner complaints, field reports, and warranty claims provided in response to Request 1 of this inquiry or in our March 15, 2002 response.

As stated above, no records were located that indicate Ford has recommended the use of all metal valve stems to specific fleets.

Request 13

In Ford's response to the RQIR, on page WWR1 2128, in book 12 of 17 (see Attachment E), Ford's valve stem recommendation to certain of its customers in a "Mandatory Action Bulletin," MAB00-10, titled "Ford Tire Valve Replacement is discussed. In this bulletin, the complaint is characterized as, "Tires will not maintain set pressures, and tires going flat without any punctures found in the tire, cut stems at the seal area, and stem blowing out of wheel rims while vehicle is in motion." The bulletin states that the "CORRECTION" involves replacing "the Ford installed Dill brand rubber 1 piece valve stems with metal 2 piece screw in valve stems." Please answer the following questions concerning this bulletin:

- a. Identify the Ford office that issued this bulletin.
- b. State whether the recommendation in the bulletin was intended to apply to all fleets or only to specific fleets. If the recommendation was only to apply to specific fleets, explain why.
- c. Please provide all documents related to valve stem failures that were submitted in response to this bulletin. This should include all complaints, letters, warranty, reimbursements, etc.
- d. Explain in detail the reasons why Ford would recommend all metal valve stems to specific fleets on a case by case basis, instead of conducting a safety recall to replace the valve stems on all similar vehicles in service.

Answer

The referenced bulletin, Attachment E, is not a Ford document. It was issued by the Alabama Power Company's Fleet Service organization. No Ford office was responsible for or authorized issuance of the document. Ford assumes that the bulletin only applies to the Alabama Power fleet.

Ford's records would not be expected to contain reports of valve stem failures that were submitted to Alabama Power in response to this bulletin because it was their decision. Records searched did not locate any document that summarized or identified those reports that may have been submitted to Ford. If failure reports responsive to the subject bulletin were submitted to Ford on an individual basis, they would be included in our responses to your requests for owner complaints, field reports, and warranty claims provided in response to Request 1 of this inquiry or in our March 15, 2002 response.

Request 14

Provide the following information related to complaints received on vehicles sold abroad:

- a. State whether the same tire valves (Dill TR-600-HP) were used on subject vehicles sold abroad. If not, please explain in detail why the same tire valves were not used on those vehicles.
- b. State whether Ford has received any complaints of the alleged defect on subject vehicles sold abroad. If so, please provide a table showing the number of complaints received from each country, including but not limited to, the number of complaints received from Mexico, Canada, Venezuela, Saudi Arabia, and Kuwait.
- c. State whether Ford has issued any notices regarding the alleged defect abroad? If so, please provide all documents relating thereto.
- d. Identify the type of tire valves supplied on 2002 MY Ford F350, F450, F550, E350, and E450 vehicles sold abroad.

Answer

The same (TR-600-HP type) tire valve stem was used in production of subject vehicles sold outside the U. S. in the same applications as it was used for vehicles sold in the United States. The subject vehicles produced in North America and exported to other countries were no different than the vehicles produced for sale in the United States with respect to tire valve stem applications.

Ford has not attempted the burdensome task of reviewing the files of the listed countries to determine if they contain any complaints or reports of the alleged defect. Files located in the Dearborn, Michigan area expected to contain notifications of such issues, if they were considered a condition that required further investigation, were searched and none were located. However, during our search for responsive documents for your inquiry's other requests, one report which may be responsive to your request concerning a vehicle being operated in Guatemala was located and is provided as part of Appendix B. The report alleges that all four of the vehicle's rear tires experienced blow outs, presumably at the same time, and that a Firestone Tire Assistance Hotline suggested that one possible cause of the incident was that the valve stems may have leaked and caused the tires to overheat and fail. Ford

believes it is unlikely that all four wheels in a vehicle would experience such an event, based on the extremely low report rate.

No record of any notices (safety recalls, owner notification programs, or similar service actions) regarding the alleged defect, other than safety recall 01S05 have been found or identified for the subject vehicles produced in North America and exported to other countries.

As stated above, the vehicles produced in North America for export to other countries are no different than the vehicles produced for sale in the United States with respect to tire valve stem applications. The valve stem usage for 1999 through 2002 model year Ford F350, F450, F550, E350, and E450 vehicles was provided in Ford's March 15, 2002 response to the agency's January 25, 2002 Inquiry Request 7.

Request 15

Furnish Ford's detailed opinion of the alleged defect in the subject vehicles. Please include an assessment of the following:

- a. The causal or contributory factors that may result in a rubber valve stem popping out of the wheel while the vehicle is in motion;
- b. The failure mode;
- c. The risk to motor vehicle safety that the alleged defect poses;
- d. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the tire valve was malfunctioning.

Answer

Ford's March 15, 2002 response to your January 25, 2002 inquiry outlined the issues in the Kentucky Truck Plant that led to Ford's initiation of safety recall 01S05. Our response provided the reasons why only the F450 and F550 models were included in the recall and provided information concerning other conditions that could cause a valve stem failure. As stated in that response Ford is not aware of any other systemic cause of valve stem failure on any of the subject vehicles.

The valve stems used in the subject vehicles are TR 600 HP type designs approved by TRMA for vehicles of the subject vehicle types and tire pressure usages. TR 600 HP type tire valve stems have been safely used on Ford F-Series and E-Series applications since the 1992 model year. Contrary to speculations or allegations contained in some of the documents supplied with this response or with our March 15, 2002 response, the TR 600 HP type valve stem is suitable for use in the subject vehicles as determined by TRMA, and Ford knows of no design or manufacturing reason beyond those specifically related to recall 01S05 that may result in the subject valve stem popping out of the wheel while the vehicle is in motion.

A valve stem that comes out of the wheel while the vehicle is in motion most likely has been damaged during installation or during road use either at the time of the event or at some point prior to the event. The damage may eventually weaken the valve stem structure to the point that all or a portion of the stem is forced out of the wheel by the tire's air pressure. Damage to the valve stem could also be caused by the use of aftermarket valve stem extensions. As stated in Ford's March 15, 2002 response, valve stem extenders are not recommended for use with rubber valve stems and providing

owners with the opportunity for their use was part of Ford's decision to equip 2002 model year F-Series dual rear wheel vehicles with metal valve stems.

There is no evidence that the valve stems used in the E-Series were damaged during vehicle production. As noted in our March 15, 2002 response, Ford's E-Series vehicles are produced using a different method of valve stem installation than used for the F-Series at the Kentucky Truck Plant. E-Series valve stems were not subject to possible damage caused by the automated valve stemming equipment used in production at Kentucky Truck prior to October 21, 2000 that subsequently caused Ford to initiate recall 01S05, and there is no manufacturing issue related to valve stems used in the E-Series.

It is also unlikely that the valve stem of the E-Series would be damaged during use. Off-road operation is generally more severe and would be more likely to cause damage than on-road operation. E-Series vehicles are more likely to be used primarily on road surfaces compared to some of the F-Series applications and, therefore, not as likely to experience valve stem damage. The small number of reports of valve stem failures on the E-Series provided in response to this inquiry and in our March 15, 2002 response also demonstrates that there is no defect trend for the E-Series vehicles because of the valve stem failure.

Ford continues to believe as stated in our March 15, 2002 response, that the valve stems used on the subject vehicles do not present an unreasonable risk to motor vehicle safety. The report rate for F450/550 vehicles is 18 times greater than the rate for Econoline-based vehicles for "A" reports and claims on the subject vehicles; many of the reports involve recall 01S05 and concern issues such as vehicle inspections, replacement of valve stems, or requests for new tires that may or may not have been damaged as a result of valve stem leakage. Of the F-Series vehicles defined as the subject vehicles in this information request, reports concerning two vehicles (VINs 1FDA56F11EA52149 and 1FDXF46F91EA29769) were identified in our March 15, 2002 response that contained allegations of an accident involving another vehicle or an object. In response to Request 2 of this information request, reports concerning three vehicles that are described as having an undefined "accident" because of issues with the vehicle's tire valve stem are provided. Ford believes that the limited number of such reports is a further indication that no defect trend exists suggesting a risk to motor vehicle safety due to valve stem failures on the subject F-Series vehicles other than what has been addressed by recall 01S05. Further, Ford has not located any records to indicate that any of these alleged accidents actually related to a valve stem failure.

Request 16

Provide the date(s) that Ford ceased collecting information for use in responding to this information request. If more than one date applies, please provide the date for each information type (e.g., vehicle population, owner complaints, warranty, etc.)

Answer

Owner Reports (MORS) dated through August 29, 2002 were reviewed for the alleged defect.

Lawuits, claims, and Field Reports from the CQIS system that are dated through August 29, 2002 were reviewed for the alleged defect.

On September 10, 2002, Ford employees potentially knowledgeable about the subject matter of this inquiry were requested to provide documents, dated through August 29, 2002, that might be responsive to the other portions of your requests.

Warranty claim data with an August 8, 2002 cut off date and September 23, 2002 load date were searched and reviewed for the alleged defect.
