

Memorandum



**U.S. Department
of Transportation**

**National Highway
Traffic Safety
Administration**

Subject: Defect Panel Review – Airbag Inadvertent Deployments
in Model Years 2004-2006 Ford F150 Vehicles **Date:** November 24, 2010

From: Richard Boyd, Acting Director *Richard Boyd*
Office of Defects Investigation

To:

Chan Lieu	NGA-110	x69132
Carla Rush	NVS-100	x64583
Brian Smith	NVS-224	x66975
Steve Summers	NVS-321	x64712
Harold Herrera	NVS-411	x64328
Marie Choi	NCC-111	x61738
Darrell Lyles	NPO-510	x65973

The Office of Defects Investigation (ODI) requests your participation in a Multi-Disciplinary Review Panel that will be convened on Wednesday, December 08, 2010, to review a safety defect investigation regarding the inadvertent deployment of the driver side frontal airbag in approximately 1.3 M model year (MY) 2004-2006 Ford F150 vehicles. At the conclusion of this meeting each panelist will be asked if they agree with ODI's recommendation to send a safety recall request letter to Ford. The meeting will be held in conference room W45-201 at 1:00 PM and will last for approximately one hour. Please indicate whether you, or an alternate representative from your office, will be able to participate in this panel review.

Background

The Ford F150 vehicle is equipped with both a driver and passenger side frontal airbags that are Certified Advanced Airbag compliant. Due to a design oversight or inconsistent quality control of parts, the driver side frontal airbag wire(s) can be chaffed by a sharp metal edge of the horn plate during normal vehicle operation/road vibrations. Once the wire insulation is cut through, a short condition can exist. Under certain condition, the shorting condition can be detected during the initial airbag diagnostic testing at engine start-up and illuminate the airbag light (ABL), or in

certain circumstances, the driver side airbag can inadvertently deploy during the engine start-up cycle or shortly thereafter.

To date, there have been 327 reports with 89 reports of airbag light illumination due to a chafed wire and 238 incidents of inadvertent deployment of the driver side airbag with 77 injuries. Most of the incidents have occurred during the initial engine start-up cycle, but some reported that the vehicles were shifted out of park (in drive or reverse gear) and either entering or driving on the roadway.

In January 2006, in response to numerous field reports of inadvertent airbag deployments, Ford implemented a stop-gap production change to the mid-MY2006 vehicles by adding a protective flock/mask tape over the sharp metal edges of the horn plate and then later for the MY2007 vehicles, Ford a) changed the airbag wire routing, b) added a more robust airbag wire protector sleeve and c) redesigned the horn plate tooling to eliminate the sharp edge potential.

Ford does not believe this issue warrants any corrective action by stating that a) the number of reports/incidents is low, b) that consumers received adequate warning by the ABL illumination and should have had the vehicle serviced and c) the resulting injuries are minor in nature.

It is ODI's position that Ford should conduct a safety recall to remedy this defective condition. If the panel concurs, ODI will inform the manufacturer that it plans to send Ford a recall request letter.

Meeting Agenda

The meeting will begin with an ODI presentation, followed by a period for questions and comments from panel members. The ODI presentation will include information regarding a review of the complaints, failure frequencies and trends, peer comparisons, and Ford's position on the issue. At the conclusion of the meeting, the panel will be asked to arrive at a consensus regarding recommendations that will be proposed by ODI.

The ODI Investigation Process

ODI conducts investigations into alleged safety defects in order to determine whether such defects exist and whether a manufacturer should conduct a recall. The basis for a recall is to eliminate the defect and reduce the potential safety risk. Investigations are opened based on consumer complaints, petitions, manufacturer service bulletins, reports from police, media reports, etc. The investigation process is staged into two phases, in general opening with a Preliminary Evaluation (PE). If analysis of the problem during the PE indicates that the investigation merits a more detailed analysis, an Engineering Analysis (EA) is opened. At the conclusion of an EA, ODI either closes the investigation or asks the manufacturer to conduct a recall by sending a recall request letter.

After the manufacturer responds to the recall request letter, ODI may recommend to the Associate Administrator for Enforcement that he/she makes an Initial Decision that there is a defect related to motor vehicle safety. Following that, a public meeting will be held to get the views of all interested parties. After the public meeting, the Administrator will both make a Final Decision that a defect related to motor vehicle safety exists and order the manufacture to conduct a safety recall, or decide that the investigation should be closed.

Answers to Potential Questions Posed by Panel Members

Q: What is a defect?

A: A defect is defined by statute as any defect in performance, construction, a component, or material of a motor vehicle or motor vehicle equipment.

Q: What is a motor vehicle safety?

A: The statute defines motor vehicle safety as the performance of a motor vehicle or motor vehicle equipment in a way that protects the public against unreasonable risk of crashes occurring because of the design, construction, or performance of a motor vehicle, and against unreasonable risk of death or injury in an accident, and includes non-operational safety of a motor vehicle.

Q: What is unreasonable risk of crashes or deaths and injuries in crashes?

A: Whether a particular risk is “unreasonable” cannot be quantified and must be decided after consideration of all relevant circumstances. ODI assesses the risk to safety by evaluating the complaint reports, the potential for injury, the defect trend (is it likely to worsen over time), and comparing the risk to that presented by peer vehicles or items of equipment.

Q: If the panel agrees that a recall request letter should be sent, is that decision irrevocable?

A: The Director of ODI makes the decision to send the recall request letter and the panel serves an oversight function. The Director has the option of not sending the letter or after sending the letter, may recommend not going forward with an Initial Decision, depending on additional information or action the company takes. Once a recall request letter is sent, a decision not to proceed to an Initial Decision is generally based on new information or proposals from the manufacturer.