Ford Motor Company

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

July 7, 2011

Mr. Claude H. Harris
Acting Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue SE, Room W45-231
Washington, DC 20590

Dear Mr. Harris:

Subject: Ford Motor Company (Ford) Recall No. 11S20 - Certain 2007 Model Year Ford Five Hundred and Mercury Montego Vehicles Fuel Tank Filler Neck Spud Weld.

Summary

- Ford Action - Ford is conducting a voluntary safety recall involving certain 2007 model year Ford Five Hundred and Mercury Montego vehicles to replace the fuel tank.

- Number of Vehicles Involved - Approximately 2,945 vehicles in the United States and federalized territories are potentially affected.

- Effect on Vehicle Operation - The fuel tanks on the subject population may not have consistent welds between the fuel tank and fuel filler neck spud during a short build period, which can affect the strength of the joint. As a result, some fuel tank spud welds may not provide the expected strength in the event of a severe rear impact to the vehicle. An improper weld can also result in a crack in the joint which would illuminate the emissions Malfunction Indicator Light, (MIL) and/or cause a fuel odor. In a small number of warranty claims minor fuel leaks have been reported. Although Ford believes that the majority of the suspect tanks have been replaced due to MIL events associated with evaporative emission leaks, in an abundance of caution Ford will recall the vehicles built in the suspect period. There have been no reports of accident, injury or fire resulting from this condition and only a small number of field reports for MIL/odor due to cracks in the fuel tank spud weld.

- Service Procedure - Owners will be notified and instructed to take their vehicles to a Ford or Lincoln dealer to have their fuel tank replaced.

The detailed information required by the applicable portions of 49 CFR Part 573 - Defect and Non-Compliance Information Report is attached.

Sincerely,

James P. Vondale
Attachment

49 CFR PART 573 – DEFECT INFORMATION REPORT
11S20 – 2007 MODEL YEAR FORD FIVE HUNDRED AND MERCURY MONTEGO FUEL TANK FILLER NECK SPUD WELD

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Defect and Non-Compliance Reports, Ford Motor Company submits the following information concerning a safety recall action that it is voluntarily initiating.

573.6 (c) (2) - Potentially Affected Vehicles

Vehicles potentially affected are certain 2007 model year Ford Five Hundred and Mercury Montego vehicles built at the Chicago Assembly Plant (CAP) from September 5, 2006 through September 11, 2006.

Because these vehicles are not produced in VIN order, information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

The fuel tanks for the affected vehicles were manufactured by Visteon at their facility in Chicago, IL. This facility only built tanks for CAP and is no longer in operation. Visteon no longer manufactures fuel tanks.

573.6 (c) (3) - Estimated Population of Vehicles Potentially Affected

Approximately 2,945 vehicles in the United States and federalized territories are potentially affected.

573.6 (c) (4) - Estimated Percentage of Affected Vehicles with the Defect Condition

Unknown.

573.6 (c) (5) - Description of the Defect

The fuel tanks in the subject population may not have consistent welds between the fuel tank and fuel filler neck spud during a short build period, which can affect the strength of the joint. As a result, some fuel tank spud welds may not provide the expected strength in the event of a severe rear impact to the vehicle. An improper weld can also result in a crack in the joint which would illuminate the emissions Malfunction Indicator Light, (MIL) and/or cause a fuel odor. In a small number of warranty claims minor fuel leaks have been reported. Although Ford believes that the majority of the suspect tanks have been replaced due to MIL events associated with evaporative emission leaks, in an abundance of caution Ford will recall the vehicles built in the suspect period. There have been no reports of accident, injury or fire resulting from this condition and only a small number of field reports for MIL/odor due to cracks in the fuel tank spud weld.

573.6 (c) (6) - Chronology of Events

May - June 2009 – The Critical Concern Review Group (CCRG) reviewed an issue concerning customers seeking service for MIL illuminations due to a vacuum leak detected in the evaporative emission system or fuel odor complaints from the fuel tank on 2007 model year Five Hundred and Montego vehicles built during September 2006. Engineering analysis of the data and a returned

fuel tank from a Montego vehicle built in the suspect time frame, found that a cold weld condition could exist in the weld between the fuel filler neck "spud" and the fuel tank.

There were four field reports (that identified symptoms of MIL or fuel odor) and two warranty claims that identified minor fuel leaks potentially attributable to this condition in the subject population.

The issue was closed, because the CCRG determined that this condition does not represent an unreasonable risk to motor vehicle safety based on:

1) The field report rate for Five Hundred and Montego vehicles in the suspect build period was low
2) The report rate was declining with time,
3) Customers had quickly become aware of the vapor leak because of illuminated MIL or odor, indicating to the customer the need for repair, and
4) There had been no indications of a fire risk related to these fuel tank replacements.

Fuel Systems Engineering continued to monitor warranty data and attempted to obtain additional returned parts to better understand the phenomenon.

February 2010 – Two additional tanks returned from the field as a result of warranty claims for MIL illumination were evaluated and found to have a 'cold weld' condition. However, when one of these tanks was further analyzed, characteristics of the weld not noted on the initial sample caused Ford to be concerned that there may be tanks whose joint strength may not meet specifications prior to the development of any leak path.

March 2010 – The concern was reintroduced into CCRG for further evaluation. Engineering took the assignment to recreate the 'cold weld' condition to assess joint strength. Crash films from 2007 model year Engineering sign-off did not show any contact with the spud during the 55 mph 70% rear offset crash testing, judged the most severe test Ford performs for Engineering sign-off as it relates to the joint strength. Report rates including warranty continue to decrease.

March - June 2010 – Engineering attempted to recreate the weld condition seen on the returned tanks by modifying various weld parameters such as temperature, time, and contact pressure. Welds that looked similar to the returned tanks were produced however; these welds showed no corresponding reduction in strength. The specific mechanism for weakening of the weld and how various environmental factors, such as prolonged fuel contact, temperature cycling and driving patterns may contribute to weld strength on the cold weld condition have not been identified. Engineering took the assignment to locate tank(s) in the build period of interest that have not exhibited cracking for evaluation of the weld.

November 2010 – One asymptomatic tank was obtained from a vehicle in the suspect population, and under evaluation the spud exhibited lower than intended joint strength.

January 20, 2011 – A Technical Review Group (TRG) was held to review engineering data and vehicle field studies. The TRG requested additional asymptomatic tanks be evaluated.

March 2011 – The results from five additional tanks from vehicles in the suspect build period that were asymptomatic were assessed. All five had joints that met the strength specification.

May 2011 - June 2011 – Three additional asymptomatic tanks were evaluated and two spud welds exhibited lower than intended joint strength. The third tank had a weld that met the strength specification.

June 2011 (June 17, 2011) – A Technical Review Group was held to review engineering data and vehicle field studies.

June 2011 (June 29, 2011) – The Field Review Committee reviewed the issue and approved a field action.

573.6 (c) (8) - Service Program

Owners will be notified and instructed to take their vehicles to a Ford or Lincoln dealer to have their fuel tank replaced. There will be no charge to owners for this service.

Mailing of owner notification letters will occur on August 15, 2011. Notification to dealers will occur on July 8, 2011.

Ford's general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall was provided to the agency on February 24, 2011.

573.6 (c) (10) - Press statement and Dealer/Owner Letters

National media attention is likely as with most Ford recalls when posted to NHTSA's safercar.gov website. Ford will provide public comments when requested. A news release will not be issued. A copy of the notification letters to dealers and owners from Ford will be forwarded to the agency when available.

573.6 (c) (11) - Recall Number

Ford has assigned recall number 11S20 to this action.

573.13 (c) (2) - Ending date for reimbursement Eligibility

The ending date for reimbursement eligibility for cost of remedies paid for by vehicle owners per Ford's general reimbursement plan is August 31, 2011.