



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

ODI RESUME

Investigation: PE 04-001
Prompted By: IE 03-070
Date Opened: 01/05/2004 Date Closed: 05/07/2004
Principal Investigator: Mark Swanson
Subject: Fuel spillage during refueling

Manufacturer: General Motors Corp.
Products: 2003 Chevrolet Trailblazer, GMC Envoy, Oldsmobile Bravada
Population: 428,670

Problem Description: Fuel spillage out of filler neck during refueling.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	11	184	195
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	873	873

*Description of Other: Warranty

Action: The Preliminary Evaluation (PE) has been closed.

Engineer: Mark B. Swanson *MBS*
Div. Chief: Thomas Z. Cooper
Office Dir.: Kathleen C. DeMeter

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Summary: This investigation was opened on the Model Year (MY) 2003 Chevrolet Trailblazer. Based on GM's Information Request (IR) response, ODI added to its analysis the MY 2003 GMC Envoy and Oldsmobile Bravada vehicles. These vehicles share the same vehicle platform (GM 360/370) and fuel fill components. Incident summary numbers reported above include these vehicles. EPA regulates the fuel dispensing rates at filling stations and GM states that the reports of spitback for the subject vehicles are principally caused by fuel dispensing pumps exceeding the rate specified by EPA. ODI finds that the rate of complaints, field reports and warranty is low compared to other vehicles that have been recalled for a spitback issue. A safety-related defect trend has not been identified at this time and further use of the agency resources does not appear to be warranted. The closing of this investigation does not constitute a finding by NHTSA that no safety-related defect exists. The agency reserves the right to take further action if warranted by the circumstances. See attached report for additional information.

7/24/04

Other Information: This Preliminary Evaluation (PE) was opened on Model Year (MY) 2003 Chevrolet Trailblazer vehicles. GM builds this vehicle on its GM 360/370 platform. Other GM vehicles on this same platform are the GMC Envoy and Oldsmobile Bravada vehicles. GM also built a small number (3,476) of Isuzu Ascender vehicles on the GM 360/370 platform. All of these vehicles share the same fuel fill system components. As a result, the complaints and warranty reported under this PE include all the MY 2003 GM 360/370 vehicles (not including the Ascender sold by Isuzu).

The complaints allege that while fueling the vehicle, fuel may spit back from the filler neck. The total number of complaints reported above (195) includes complaints to ODI (11), GM (30) and field incident reports to GM (154).

EPA published regulations to ensure that no fuel spitback occurs during fueling at a rate of 10 gallons per minute (GPM). The regulations limit service station fuel dispensing rates to 10 gallons per minute (gpm) and include vehicle tests for ensuring that no spitback occurs when fueling the vehicle at 10 gpm.

GM provided data showing that the subject vehicles are designed and tested to not spitback during fueling at 10 gpm. GM reports no component malfunction (i.e., stuck check valve or pinched vent line) as causing spitback. It believes that the reports of spitback are due to fueling at rates exceeding 10 gpm. Its testing of vehicles has verified that spitback may occur at fueling rates of 1.2 gpm. The quantity of spitback fuel measured during testing was about 2 ounces.

GM issued Technical Service Bulletin (TSB) # 04-06-04-003 on January 12, 2004, to change the bend angle of the upper filler pipe and to include a check valve in the lower hose assembly. The TSB states that customers may comment that their vehicle is difficult to fill with fuel or when filling, the pump continuously shuts off before the tank is full or when filling the fuel tank, a small amount of fuel may spit back/out. The new upper pipe was redesigned to provide smoother fuel flow conditions in the upper pipe and a new check valve was added to the lower hose to prevent pressure from building up in the fuel tank.

ODI reviewed the warranty, complaints and field reports for the subject vehicle compared to other recalled vehicles and prior investigations. GM reports a total of 873 warranty claims that may be related to the spitback issue for a rate of 0.2%. The rates of warranty, complaints and field reports is lower than other vehicles recalled to correct a defect related to fuel spitback and are more in line with previous closed investigations.

The exhaust pipe is located on the opposite side of the fueling nozzle preventing the exhaust pipe from acting as a heat source in the presence of fuel spillage.

ODI is aware no reports of lawsuits, injury or death associated with this issue.

Based on the above, it is not likely that further investigation would identify a defect related to motor vehicle safety.