



ODI RESUME

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

Investigation: PE04-075
Date Opened: 11/10/2004 Date Closed: 04/28/2005
Principal Investigator: Kyle Bowker
Subject: Ignition Relay Failure

Manufacturer: General Motors Corp.
Products: 2004 Buick Rendezvous and Pontiac Aztek
Population: 34,996

Problem Description: Ignition relay fails without warning or engine stalls due to unknown or unspecified cause. The failure of the ignition relay may cause the vehicle to stall. Restart may be significantly delayed or not possible.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	23	55	68
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	1092	1092

*Description of Other: Warranty claims paid by the manufacturer to replace ignition relay modules.

Action: This Preliminary Evaluation has been closed. The manufacturer will conduct a safety recall (05V-157).

Engineer: Kyle M. Bowker KMB

Date: 04/28/2005

Div. Chief: Jeffrey L. Quandt

Date: 04/28/2005

Office Dir.: Kathleen C. DeMeter

Date: 04/28/2005

Summary: On November 10, 2004, the Office of Defects Investigation (ODI) opened a Preliminary Evaluation to investigate the failure, malfunction, or other unsatisfactory performance of the engine control system which may result in engine stalling in certain model year (MY) 2004 Buick Rendezvous (GMT257) and Pontiac Aztek (GMT250) vehicles allegedly caused by ignition relay failure. ODI is aware of 68 non-duplicative complaints and 1092 warranty claims related to the subject issue. There are no known crashes related to ignition relay failure on the subject vehicles.

By letter dated April 19, 2005, General Motors Corp. (GM) has notified ODI that it will conduct a safety recall (NHTSA Recall No. 05V-157) to replace defective ignition relay modules in approximately 34,996 subject vehicles built between October 13, 2003 and March 8, 2004. This period of vehicle production is associated with escalated warranty claims rates and complaints that allege engine stall due to ignition relay failure. GM has identified parts suppliers who used materials containing silicone in the manufacture of specific components for the ignition relay module. Silicone contamination can result in silica deposits forming on the contacts as the relay switches and the heat generated by the resultant arc converts the silicone to silica. Silica build-up on the contacts is progressive and may produce a voltage drop across the relay sufficient to cause an intermittent no-start or engine stall condition. Warranty analysis indicates the incidence of no/hard start versus engine stall to be equal. Analysis of towing claims and detailed service records indicates that vehicles may experience restart difficulties after a stalling incident approximately 20-30 percent of the time. The use of silicone materials in the manufacture of the subject ignition relay has been discontinued.

The action taken by GM is sufficient to resolve the issues raised by this investigation. Accordingly, this investigation is closed.