



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 11-037
Date Opened: 11/25/2011
Investigator: Emily Reichard **Reviewer:** Scott Yon
Approver: Frank Borris
Subject: Post-Crash EV Fire Hazard

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: GENERAL MOTORS LLC
Products: 2011-2012 Chevrolet Volt
Population: 5,000 (Estimated)
Problem Description: Intrusion in a crash may damage the battery, which may result in a substantial thermal reaction and fire.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	TBD	TBD
Crashes/Fires:	0	TBD	TBD
Injury Incidents:	0	TBD	TBD
Fatality Incidents:	0	TBD	TBD
Other*:	3	TBD	3

*Description of Other: NHTSA Tests

ACTION / SUMMARY INFORMATION

Action: A Preliminary Evaluation (PE) has been opened

Summary:

On May 12, 2011, NHTSA performed a NCAP side pole impact test, followed by a post impact rollover test on a Chevrolet Volt. In connection with that testing, NHTSA has identified the potential for intrusion damage to the battery which may result in a substantial thermal reaction and fire. Twenty-one days after the May 12, 2011 testing, delayed thermal heating and pressure release resulted in a fire that consumed the Chevrolet Volt and three other vehicles in close proximity at the test facility.

During the week of November 14, 2011, NHTSA performed follow-up battery-level tests to simulate the incident. NHTSA performed three tests simulating the mechanical damage to a battery pack observed from the first incident. Two of the three tests produced thermal events, including fire. Because of these test results, NHTSA has opened this investigation to examine the potential risks involved from intrusion damage to the battery in the Chevrolet Volt, in coordination with the agency's ongoing review of the emerging technology involved in electric vehicles.