DOCKET ITEM

For the

SPECIAL INVESTIGATION REPORT

Safety Risks to Emergency Responders from Lithium-Ion Battery Fires in Electric Vehicles

STATEMENT OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ON FORMAL SAFETY DEFECT INVESTIGATION OF THE POST-CRASH FIRE RISK IN CHEVY VOLTS

NHSTA Press Release November 25, 2011

(3 pages)

Statement of the National Highway Traffic Safety Administration On Formal Safety Defect Investigation of Post-Crash Fire Risk in Chevy Volts

For Immediate Release
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Additional Resources
Defects Investigation Documents (PE11-037)

WASHINGTON, DC — The National Highway Traffic Safety Administration (NHTSA) issued the following statement today announcing the agency will be opening a formal safety defect investigation to assess the risk of fire in Chevy Volts that have been involved in a serious crash:

The National Highway Traffic Safety Administration is deeply committed to improving safety on our nation's roadways. As part of our core mission to reduce traffic injuries and fatalities, NHTSA is continually working to ensure automakers are in compliance with federal motor vehicle safety standards, culling information to identify safety defects, and ensuring manufacturers conduct any necessary safety recalls. The agency has also developed a robust New Car Assessment Program (NCAP) to test the majority of the vehicle models introduced to consumers each year.

This past May, NHTSA crashed a Chevy Volt in an NCAP test designed to measure the vehicle's ability to protect occupants from injury in a side collision. During that test, the vehicle's battery was damaged and the coolant line was ruptured. When a fire involving the test vehicle occurred more than three weeks after it was crashed, the agency concluded that the damage to the vehicle's lithium-ion battery during the crash test led to the fire. Since that fire incident, NHTSA has taken a number of steps to gather additional information about the potential for fire in electric vehicles involved in a crash, including working with the Department of Energy and the Department of Defense — in close coordination with experts from General Motors — to complete rigorous tests of the Volt's lithium-ion batteries.

In an effort to recreate the May test, NHTSA conducted three tests last week on the Volt's lithium-ion battery packs that intentionally damaged the battery compartment and ruptured the vehicle's coolant line. Following a test on November 16 that did not result in a fire, a temporary increase in temperature was recorded in a test on November 17. During the test conducted on November 18 using similar protocols, the battery pack was rotated within hours after it was impacted and began to smoke and emit sparks shortly after rotation to 180 degrees. NHTSA's forensic analysis of the November 18 fire incident is continuing this week. Yesterday, the battery pack that was tested on November 17 and that had been continually monitored since the test caught fire at the testing facility. The agency is currently working with DOE, DOD, and GM to assess the cause and implications of yesterday's fire. In each of the battery tests conducted in the past two weeks, the Volt's battery was impacted and rotated to simulate a real-world, side-impact collision into a narrow object such as a tree or a pole followed by a rollover.

NHTSA is not aware of any roadway crashes that have resulted in battery-related fires in Chevy Volts or other vehicles powered by lithium-ion batteries. However, the agency is concerned that damage to the Volt's batteries as part of three tests that are explicitly designed to replicate real-world crash scenarios have resulted in fire. NHTSA is therefore opening a safety defect investigation of Chevy Volts, which could experience a battery-related fire following a crash. Chevy Volt owners whose vehicles have not been in a serious crash do not have reason for concern.

While it is too soon to tell whether the investigation will lead to a recall of any vehicles or parts, if NHTSA identifies an unreasonable risk to safety, the agency will take immediate action to notify consumers and ensure that GM communicates with current vehicle owners.

In the meantime, the agency is continuing to work with all vehicle manufacturers to ensure they have appropriate post-crash protocols; asking automakers who currently have electric vehicles on the market or plan to introduce electric vehicles in the near future to provide guidance for discharging and handling their batteries along with any information they have for managing fire risks; and engaging the Department of Energy and the National Fire Protection Association to help inform the emergency response community of the potential for post-crash fires in electric vehicles.

NHTSA continues to believe that electric vehicles have incredible potential to save consumers money at the pump, help protect the environment, create jobs, and strengthen national security by reducing our dependence on oil. In fact, NHTSA testing on electric vehicles to date has not raised safety concerns about vehicles other than the Chevy Volt.

NHTSA's current guidance for responding to electric vehicles that have been in a crash remains the same. The agency continues to urge consumers, emergency responders, and the operators of tow trucks and storage facilities to take the following precautions in the event of a crash involving any electric vehicle:

- Consumers are advised to take the same actions they would in a crash involving a gasoline-powered vehicle — exit the vehicle safely or await the assistance of an emergency responder if they are unable to get out on their own, move a safe distance away from the vehicle, and notify the authorities of the crash.
- Emergency responders should check a vehicle for markings or other indications that it is electric-powered. If it is, they should exercise caution, per published guidelines, to avoid any possible electrical shock and should disconnect the battery from the vehicle circuits if possible.

- Emergency responders should also use copious amounts of water if fire is present or suspected and, keeping in mind that fire can occur for a considerable period after a crash, should proceed accordingly.
- Operators of tow trucks and vehicle storage facilities should ensure the damaged vehicle is kept in an open area instead of inside a garage or other enclosed building.
- Rather than attempt to discharge a propulsion battery, an emergency responder, tow truck operator, or storage facility manager should contact experts at the vehicle's manufacturer on that subject.
- Vehicle owners should not store a severely damaged vehicle in a garage or near other vehicles.
- Consumers with questions about their electric vehicles should contact their local dealers.

For future updates, visit www.SaferCar.gov.

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