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## ***GM Pickup Trucks — Fuel Tanks and the Media Spotlight***

Recent allegations concerning the location of fuel tanks on some full-size General Motors (GM) pickups and NBC's coverage of the fuel tank dispute have received as much media attention as any highway safety issue in the last 20 years. The controversy has raised questions about crash test procedures generally. Some questions also have been raised about the insurability of these vehicles, notwithstanding the fact that crash fires are relatively rare, even in serious crashes.

The Institute has done its own analysis of the risk of fires in fatal crashes, and has been quoted extensively in the media on this subject. In view of the intense media scrutiny and the continuing questions, the Institute has outlined the key facts about the issue.

### **GM Pickup Fuel Tank Design**

In August 1992, the Center for Auto Safety (CAS) petitioned the National Highway Traffic Safety Administration (NHTSA) to open a defect investigation of 1973-87 GM pickups built with "side-saddle" gas tanks attached outside the frame rails. This led GM to contract with Failure Analysis Associates (FAA), a group that automakers use extensively in product liability litigation, to do an analysis of the fire risk in their pickups. FAA concluded that GM pickups didn't have higher fatality rates than other pickups with gas tanks inside the frame rails.

The Institute looked at this analysis and found that the comparison group of pickups chosen by FAA included many that were smaller than the GM pickups, and therefore the conclusions reached by FAA were invalid. The Institute then did its own review of the fatal crash data using more appropriate comparison groups. The Institute's findings clearly showed that GM pickups had a higher rate of fire involvement in fatal crashes, especially in side-impact crashes, than full-size pickups from Ford or Chrysler. This over-involvement disappeared in 1988 and later models when GM pickups' fuel tanks were relocated inside the frame rails.

It should be noted, however, that contrary to impressions created by Hollywood, motor vehicle crash fires are not common, even in serious crashes. In this case, the Institute found that approximately 7 percent of the fatal GM pickup crashes involved fires compared with approximately 5 percent of the fatal Ford pickup crashes.

### **Institute Asks NHTSA to Investigate**

The Institute submitted its analyses to NHTSA and stated its opinion that the findings were sufficient to grant the pending petition for a defect investigation. Contrary to some reports, the Institute did not ask for a recall but instead for a systematic and thorough

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The Insurance Institute for Highway Safety and the Highway Loss Data Institute are independent, nonprofit public service organizations that identify, develop, and evaluate ways to reduce the losses — deaths, injuries, and property damage — resulting from crashes on the nation's highways. Their work is wholly supported by the American Insurance Highway Safety Association, the American Insurers Highway Safety Alliance, the National Association of Independent Insurers Safety Association, and a number of individual insurance companies.

investigation of all the evidence concerning alleged defects. Shortly after the Institute's submission, NHTSA granted the CAS petition and began a formal "engineering analysis." The agency requested extensive documentation from GM concerning the design and testing of the pickups in question, and is now reviewing this material as well as conducting a series of fuel tank integrity tests of these vehicles.

After completing the engineering analysis, NHTSA can either close the case because it finds there is no basis for further action, or it can upgrade the engineering analysis to a "defect investigation," which is typically the final stage of the process leading toward a recall.

### **Design Feature or Defect?**

Although the issue has been compared with other prominent defect cases such as the Ford Pinto gas tank defect in the late 1970s, there may be differences that could make NHTSA's determination difficult. The Pintos were manufactured before there were rear-end crash test requirements for fuel systems. Plus, the Pinto gas tanks had a clear design defect — an exposed bolt that frequently punctured holes in the gas tank in rear impacts. In such circumstances, the defect determination process becomes relatively straightforward.

NHTSA is now attempting to ascertain whether there are particular design features of the GM fuel tanks that frequently cause them to rupture in side impacts. NHTSA is also looking at GM's compliance testing of these vehicles. If the agency identifies specific design features that lead to rupture, or problems with compliance, then almost certainly the vehicles will be subject to a recall.

If, on the other hand, the excess fire deaths in the GM pickups simply reflect the fact that GM's competitors chose better design concepts — ones that exceeded the federal standard for fuel tank design integrity in side impacts by a much wider margin than the GM design — then NHTSA will face a difficult decision because the problem may be more appropriately considered a poor design concept rather than a design defect.

### **NBC's Discredited Testing Procedures**

Compounding the situation is the NBC news program "Dateline" and GM's suit against the network for product defamation. GM sued because ignitors were used during a staged side-impact crash featured on the program and because NBC failed to inform its viewers of this. NBC's almost instant capitulation to GM was well-deserved. The focus then switched to the proper way to conduct crash tests.

Ignitors are not used during fuel tank crash testing, as some groups have claimed. In fact, in the vast majority of high-speed crash tests, including tests for fuel system integrity, all of the gasoline is removed from the vehicle and replaced with an almost inert chemical called Stoddard fluid. It's obviously important for credibility to clearly identify cases when ignition sources are present. For example, in 1973 the Institute's front-to-rear fuel tank testing was done with gasoline in the cars, and the *Status Report* story clearly stated, "In one of the six crashes...fire erupted spontaneously when the crash itself provided a spark. In another, fire occurred when technicians provided a source of ignition, a typical roadside flare," after the crash.

### **The Jury Award**

Further complicating this issue is the huge punitive damage award in the Atlanta lawsuit against GM for its pickup's fuel tank design, which was second only to an award in a Pinto gas tank suit in the 1970s. This suggests that the public considers burn deaths and burn-related injuries to be much more serious and deserving of attention than other crash injuries. The public is clearly holding manufacturers to a very high standard when it comes to fuel system integrity.