

## What Takata Airbag Inflators Imply For Products Liability Litigation.

Dr. David Ullman

Takata airbags inflators have been identified as the cause of at least eleven deaths and countless injuries in recent years. While all products come with risks, it appears that Takata knew about the potential for injury and death as early as 2004 and made decisions to bury this information without proactively reacting to it.

Takata has now dug a hole so deep that it is being fined and sued, it is losing customers (big customers like Honda, Mitsubishi and Toyota), and its stock is at its lowest point in years. As part of its recent response to the situation, Takata commissioned a panel led by Samuel Skinner, the former transportation secretary under President George H.W. Bush to focus on reviewing the design, testing and quality of materials. The panel was not asked to pass judgment on the design of the airbag inflators, but on the **process of reacting to accidents, risk assessment and mitigation**; and on how Takata makes **decisions that not only minimize cost, but minimize risk to customers and public.**

Most products liability cases revolve around domain experts providing testimony on the product itself: Was it defectively designed? Did it include adequate safety devices and warnings? Did user follow the warnings? And did the designers foresee all its uses and misuses? What Takata has done with this panel (and Toyota before it, when addressing sticking accelerator pedals) is to go a level deeper. It addressed the **processes used within the organization to design quality into products, make decisions when addressing risks, and react to potential product flaws.** This shift from the product itself to the product design and risk mitigation processes may portend a fundamental shift in managing products liability. It forces looking at the practices within an organization or even an entire industry's culture.

The focus is increasingly on answering the questions: During product design or re-design did the manufacturer:

1. Follow design best practices during the initial development or need for product change? Takata appears to have a weak quality control system and a poor process for reacting to potential product defects.
2. Analyze and mitigate risks in a professional manner? Takata concluded as early as 2004 that the risk was low enough and less important than the product cost. Clearly the decision was not to mitigate the risks and it has come back to haunt them.
3. React to incidents/accidents during test and use in a responsible manner? At least Takata tested the airbags in 2004 when they first heard about the problem (see more on this in the paragraph below). Unfortunately it chose a poor response to what was found and buried the results of the testing. Many companies ignore or file accident and incident reports without adequate testing and response.
4. Make decisions that not only minimize cost, but minimize risk to customers, operators and public? It appears that cost was the driving factor in Takata's decision making, not risk reduction.

I am currently an expert witness in an on-going series of cases where a specific product is involved in accidents and deaths at a rate higher than Takata's airbag inflators. In these cases (spread across multiple manufacturers of similar products) the manufacturers don't even collect good data on product use and accidents, they haven't done adequate testing, and they have made decisions to not seriously address the problem. They have even leveraged a standards committee to not address the issue. All of this is catching up with the manufacturers as the theme of the cases against them are maturing from being product, user training, and warning label focused; to being centered on the process the manufacturers follow when addressing risk.

So, what does this mean to liability litigation? Say a person is injured or killed when using a product. Further, say this happens repeatedly. The plaintiffs must show that the company knew about these incidents and did not react professionally, consistent with best practice to them. The defense must show that the manufacturer had not only had a process in place to design a safe product initially, considering all foreseeable uses and misuses for it; but that it had processes for considering in-use accidents and incidents. These processes include how it captures accident information, how it tests to understand what happened, and how it makes decisions about what to do in light of what it learned.

In Takata's case, it appears from what has been published in the popular press, they:

- Had poor quality control during production
- Made poor product change decisions that caused the potential failures (They moved to a cheaper, more unstable propellant in 2001).
- Did not use best practice risk assessment methods when faced with growing evidence about a problem.
- Made poor risk mitigation decisions after testing in 2004.

These "process" oriented topics require expertise, not about how to design airbags or propellants, but about the best practices to manage product risk, development and change. Design process and risk management expertise is new to the expert witness industry. It not only requires knowledge of best practices, but the ability to communicate them to judges and juries.

*Dr. David Ullman is the author of "The Mechanical Design Process" a text whose 5<sup>th</sup> edition was just released by McGraw Hill. It is a compendium of product design best practices. In support of this edition he has written over fifteen case studies examining best design practices across many diverse product domains. Details on his background are at [www.davidullman.com](http://www.davidullman.com).*