

IVHS Legal Issues: Perceived or Real

Intelligent Vehicle Highway Society of America
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Reston, Virginia

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It is a pleasure to share this podium with such a distinguished group of lawyers, and to address such a significant audience of engineers and scientists. I intend to speak for just 15 minutes, because I know from previous audiences that a talk about IVHS and legal liability will generate many questions.

The meeting organizers picked an appropriate title for this session when they hit upon "perceived and real legal issues of IVHS". From the beginning of IVHS research in this country (and for me that beginning was two years ago), the perceived tort liability attendant upon the development of smart cars and smart highways has been a real problem. It has been a basis for skepticism about the technology by agencies that fund IVHS research. It has been a cause for serious concern on the part of the automotive, electronics, and communications industries. And in the universities, it has been the driving force behind efforts by scientists to get law professors and lawyers productively involved in IVHS research.

There is a real need for productive contributions by lawyers to IVHS America. By "productive contributions", I mean that lawyers and legal scholars need to do something other than simply malign the technology or bemoan the American civil liability system. Horror stories about the possibility of catastrophic accidents or runaway juries certainly grab one's attention, but they do little to help public and private entities plan for managing the risks and the liability that will inevitably accompany any path-breaking transportation technology. What is needed instead is focus on the particular package of applications that IVHS represents so that we can identify irrational legal concerns and plan to manage the real legal problems.

My early views of the liability and insurance implications of IVHS technology have been published in a Technical Paper of the Society of Automotive Engineers (Number 901507), which has been reprinted in your conference materials. I will assume today that you have read that paper, and will talk instead about some of my ongoing IVHS research. First, I will discuss a perceived legal problem of IVHS that, in my opinion, is not a real one: punitive damages. Second, I will describe a real problem of IVHS that has been inadequately perceived: design defect liability for cars and highways that are not equipped with IVHS technology. Finally, I'll address a real legal problem that has been perceived: the liability accompanying an IVHS technology that takes control of a vehicle from the driver.

I. Punitive Damages

Punitive damages are awarded to plaintiffs in some civil cases (in addition to compensation for actual injuries or losses) in order to punish defendants who cause harm by deliberate misconduct or by callous disregard of others, and to deter such misbehavior. The prospect of large punitive damages awards terrifies manufacturers and innovators of new products that pose some risk of physical injury to consumers. IVHS products, like most aspects of automobile and highway technology, inevitably pose some such risk.

Even before the Supreme Court's decision two weeks ago in Pacific Mutual Life Insurance Company v. Haslip, I was often questioned by IVHS planners about their potential liability for punitive damages. The Haslip decision seems to have increased anxiety. In Haslip the Court, by a 7-1 vote, rejected a constitutional challenge to an \$840,000 punitive damages award by an Alabama jury. The Court's opinion leaves open the possibility that some procedures by which punitive damages are imposed may be found to violate the due process clause of the Fourteenth Amendment. But it seems highly unlikely that the Court will intervene anytime soon to impose a clear constitutional limitation on punitive damages awards.

Public reaction to the Haslip decision, like the reaction of the people at this conference, has largely focused on punitive damages in products liability cases. The President of the Association of Trial Lawyers of America said the decision sent a "firm message to those who make unsafe products"; others called the decision "a scud missile aimed at American manufacturers".

Ironically, the "scud missile" metaphor gets it about right: punitive damages get a lot of attention from the media and the public, but rarely strike home in a products liability case. My own research on California civil jury verdicts in 1985-1986 confirms the results of the most comprehensive empirical work on punitive damages (by Stephen Daniels): Punitive damages are

very, very rarely awarded in products liability cases. Most punitive damages awards occur in cases where there is some long-term relationship of trust between the plaintiff and the defendant. Indeed, the archetypal case involves an insurance company that egregiously mishandles a claim filed by its own insured. The Haslip case itself involved this situation, as do most recent appellate decisions concerning punitive damages.

Of course, punitive damages are sometimes awarded in product liability cases. But the bulk of these awards are concentrated in the pharmaceutical and fiber industries. Punitive damage awards against an automobile or component manufacturer are remarkably few. Highway departments and local governments, as far as I can tell from the data, almost never end up paying a punitive damages award. Finally, there has been significant reform of punitive damages law at the state level in the past three years, both in the courts and the legislatures, which makes enormous punitive damages awards considerably less likely.

I conclude that IVHS planners should focus less on the threat of punitive damages than on the problem of compensatory damages, which are awarded, often in large amounts, in many products liability cases. If punitive damages are the scud missiles, then compensatory damages are the carpet bombing, and it is clear that the latter is the more important problem for IVHS.

II. The Gradual Introduction of Safety-Enhancing Technology

I now wish to turn to a real legal problem that few seem yet to have adequately perceived. Unless we are careful in planning, IVHS technology may create significant legal liability for cars and highways that are not equipped with the technology.

Many of the talks at this conference have admirably demonstrated that IVHS will improve automobile and highway safety. Increased safety is an obvious benefit of, for example, collision warning systems, automatic braking systems, and headway-keeping systems. Indeed, any technology that reduces highway congestion -- including automatic toll systems and traveller information systems -- will reduce the frequency of automobile accidents, since that frequency is correlated with congestion.

It is also clear from this conference that these safety-enhancing IVHS applications can not and will not be introduced on all cars and all highways simultaneously. If we rely on private markets to provide the technology, it is likely to seep into cars and trucks gradually, starting with fleet vehicles and top-of-line private models. If the technology is installed on highways

through public agencies, the introduction will also be gradual, starting with pilot projects and then moving on to the most congested thoroughfares.

The gradual introduction of safety-enhancing IVHS technology is desirable, of course. It would be foolish to implement IVHS on all cars and highways without substantial experience with the technology under modern traffic conditions -- without first learning what consumers really will pay for, what safety enhancement and congestion reduction really will result, and what the costs really will be. Unfortunately, gradual introduction poses a legal problem because, in the meantime, accidents will continue to occur involving cars and highways that are not equipped with the safer technology. The designers, manufacturers, and builders of those "dumb" cars and "dumb" highways will have to be prepared to face claims that their designs are defective because they failed to include the IVHS technology already in place elsewhere. They may be tempted to drag their feet on implementation of IVHS on a few cars or highways out of concern that this will inadvertently raise their liability for accidents on all cars and highways.

Design defect claims based on failure to provide a safety device are familiar to anyone who has worked on airbags in the United States. I am currently studying airbag litigation and regulation for insights into IVHS liability. My preliminary research suggests two lessons. First, automobile manufacturers have been largely successful in defeating design defect claims based on failure to supply an airbag. That success, however, has required significant expenditure on defense attorneys fees. Second, an important contributor to the success was the ability of manufacturers to point to NHTSA standards for airbag implementation on American cars. NHTSA standards were the basis for manufacturer claims that (1) state tort law was "preempted" by federal law and (2) that particular designs were not defective. It seems possible that NHTSA regulation will be the best way to manage and promote the gradual introduction of some IVHS applications.

III. Driver Control Diluting Technology

Let me turn finally to a legal problem of IVHS that is both perceived and real. My previous writing emphasized that the most serious liability problems await those aspects of IVHS technology that dilute the driver's control of the vehicle. I have expressed particular concern in this context about automatic braking systems, headway keeping systems, autonomously controlled vehicles, and controlled highways. When control of the vehicle is divided between the driver and the IVHS system, responsibility for accidents is much more likely to become obscured, and

manufacturers and highways owners are much more likely to become defendants in tort suits.

This worry has caused me to research the legal liability that followed the most common form of "control-diluting" technology now in place on American cars: Cruise Control. Remarkably, there are only a handful of reported decisions in which anyone alleged that an automobile or component manufacturer was responsible for accident due to the design or operation of a cruise control mechanism. I am currently working through the history of those cases to gain some insight into why so little liability has flowed from cruise control. One explanation, to which I remain open, is that my thesis is just wrong -- juries and lawyers will continue to blame driver error for accidents even if the driver's control of the vehicle is somehow diluted. Another possibility is that the design of a cruise control system is such that it is intuitively easy for everyone (including jurors) to understand that the driver remains primarily responsible for operation of the vehicle. The system disengages easily (usually at the touch of a pedal) and still leaves many decisions to the individual driver.

The experience with cruise control, like that with airbags, may be our best teacher on the question of how to design and implement IVHS technology in ways that minimize accidents and legal liability. I also plan to study experience with antilock brakes before writing my next paper for the VNIS Conference this October. I would appreciate hearing from any of you who have knowledge or experience with the legal problems of these products, and from anyone who can suggest other related automotive or highway technologies worthy of attention.

[Questions]