NHTSA Turns Down Petition Seeking Stability Ruling

Diane Steed, National Highway Traffic Safety Administration (NHTSA) administrator, has turned down Senator Timothy Wirth's petition seeking a rule to limit the rollover propensity of pickup trucks, utility vehicles, and automobiles.

Basing a rule on a vehicle's "stability factor" alone "is too narrow and inappropriate an approach," Steed ruled. The stability factor is the ratio of one-half the track width divided by the vehicle's center of gravity height.

Track width and center of gravity height alone, without taking into account other factors, are "not an accurate predictor of rollover involvement," NHTSA says. However, the agency's own study does confirm that "a high degree of correlation exists between the risk of vehicle rollover and the vehicle rollover stability factor."

In a Federal Register notice rejecting Wirth's petition, the agency stated the stability factor is an accurate predictor of a vehicle's propensity for rollover if it becomes involved in a single vehicle crash.

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The agency says, however, it won't make a rule to limit the likelihood of rollovers because the factor cannot be used to predict whether a driver will become involved in a single vehicle crash.

"Whether or not the stability factor predicts the likelihood of involvement in single vehicle crashes is irrelevant," says Brian O'Neill, president of the Insurance Institute for Highway Safety. "What should be at issue for rulemaking is whether or not a rule could reduce the likelihood that crashes become rollovers, which have serious consequences. Clearly, preventing the sale of vehicles with poor stability factors would do that."

Leon Robertson: "Rollover appears to be largely a function of vehicle stability."

In fact, NHTSA's own study concluded: "Statistical confirmation of the important relationship between vehicle rollover stability, as defined by the ratio of half-track width to center of gravity height, and rollover risk, has been established." Moreover, the researchers performed an analysis of a number of variables that could influence rollover incidence and found that although driver age and sex "was shown to be consistently significant across all data sets, the overwhelming variable in explaining rollover rate variations as a function of vehicle make/model designation, is the vehicle rollover stability factor."

The NHTSA analysis was based on a study of single vehicle crashes in Texas and Maryland during 1984 and 1985, and in Washington during 1983 through 1985. Nearly 5,000 single vehicle rollover crashes were studied and contrasted with almost 41,000 single vehicle crashes. Twenty foreign and domestic automobiles were evaluated along with eight utility vehicles.

In a petition filed in September 1986, while still a Member of the House and chairman of the Commerce Committee's subcommittee overseeing NHTSA, Wirth suggested the agency establish a stability factor of 1.20 "as the minimum standard acceptable level of stability." Wirth selected the value based on a study conducted by Leon Robertson and Ben Kelley that found vehicles with a range of values of 1.01 to 1.10 to be excessively involved in rollover-initiated fatal crashes. The study showed that utility vehicles with a narrow track width and high center of gravity—the Jeep CJ-5, CJ-7, and Ford Broncos built before 1978—had rollover rates far in excess of other vehicles. (See *Status Report*, Vol. 21, No. 10, Aug. 23, 1986.)

Separately Wirth also petitioned NHTSA to open a defect investigation of cars, utility vehicles, and pickup trucks whose stability factor is less than a minimum standard. He also urged NHTSA to obtain and publish information on the stability factor and rollover crash rates, and to warn owners of vehicles with high likelihood of rollover of the operational limits of their vehicles.

Steed denied the defect petition and declined to publish information on vehicle stability, saying the safety agency's information booklet on utility vehicle operation is an example of its efforts to improve utility vehicle safety.

Separately, Robertson reported his latest study of utility vehicle rollovers at the 1988 SAE conference in Washington. The new analysis of Fatal Accident Reporting System data from 1982 through 1987 shows "rollover appears to be largely a function of vehicle stability, the higher the stabili-

ty, the lower the fatal rollover rate."

NHTSA says it has delayed regulatory action because vehicle stability is a continuously distributed variable and an arbitrary number would have to be selected. Moreover, the agency says a required point "might induce manufacturers to take actions that in some instances could have a net adverse effect on safety. Such an order could even result in outlawing all or most of an entire vehicle type," the notice states.

However, many of the present vehicle safety standards are based on continuous variables, notes O'Neill. "For example, the injury criteria contained in Federal Motor Vehicle Safety Standard 208 are continuous variables and values are chosen above which a vehicle is considered to have failed."

Design solutions . . . are simple and relatively inexpensive for the most dangerous utility vehicles.

Design solutions, moreover, are simple and relatively inexpensive for the most dangerous utility vehicles, says Robertson and researchers for the Insurance Institute for Highway Safety. Smaller diameter tires would reduce the height of the center of gravity and wheels also could be offset to widen the track, as has been done with the redesigned Jeep Wrangler.

Under orders from Congress, NHTSA has outlined research on pickup truck rollovers, handling and braking tests of utility vehicles and light trucks, and a major Maryland study of 2,800 single vehicle rollover crashes. (See *Status Report*, Vol. 23, No. 5, May 7, 1988.)

CORRECTION

The May 7, 1988 issue of *Status Report* reported that Iowa enacted a new law permitting the removal of front brakes on large trucks manufactured after July 25, 1980. The story should have read manufactured *before* July 25, 1980. However, vehicles with two or more front axles must be equipped with brakes on one of the axles.

Chairman Jim Florio discusses crash damage costs with Brian O'Neill, Institute president.

Insurance Claims: Losses Rise Dramatically

The cost of repairing crash damage has risen dramatically, the Highway Loss Data Institute (HLDI) recently told Congress.

Neither the frequency of automobile insurance claims, nor the severity of crashes has increased in recent years, Brian O'Neill, president of HLDI and the Insurance Institute for Highway Safety (IIHS), told Rep. Jim Florio, New Jersey Democrat and chairman of the Subcommittee on Commerce, Consumer Protection, and Competitiveness.

"What has changed dramatically is the cost of insurance claims, the cost of repairing the damage to people and property from crashes." He points out that a decade ago, HLDI, an insurance research organization affiliated with IIHS, reported that the average frequency of collision coverage claims for 1976 models was 10.1 per 100 insured vehicle years. For 1986 models, the corresponding figure is 10.4. In addition, the average frequency of insurance injury claims hasn't changed much: 21.1 per 1,000 insured vehicle years in 1976, compared with 22.4 for 1986 models.

On the other hand, the average loss payment for vehicle repairs rose from $637 in 1976 to almost $1,800 in 1986.

Imported sports and specialty cars generate especially high insurance losses, he notes, and such cars are more popular in some parts of the country than in others. For example, California has a much larger proportion of insured small and sport/specialty cars than does the rest of the United States. Geographic location also counts heavily because in more urban areas the frequency of low speed collisions is much higher than in rural areas. Eighty-five percent of the cars in New Jersey are located in densely populated cities and suburbs, he notes, accounting for part of the state's higher insurance losses.

Frederick Cripe, an Allstate insurance actuary, told Congress that auto theft accounted for 45 percent of its paid comprehensive losses for noncollision, physical damage in 1987. "The total bill to Allstate policyholders as a result of auto theft is nearly $400 million per year," Cripe says. "The total value of property stolen as a result of auto theft countrywide in 1986 was nearly $7 billion . . . To put this is perspective, if auto theft were a company, its revenues would have placed it 59th in the Fortune 500, just ahead of Union Carbide."

Lt. Robert F. Morgan, of the auto crime division, New York City Police, reported that there are about 1.2 million auto thefts annually, with 55 percent of all vehicles stolen by organized crime for resale as parts. About 25 percent of thefts are the result of insurance fraud, he says.

State Farm representative Pete Ingham, says his company paid out $440 million in auto theft claims last year. Separately, he notes, the company has worked to promote competition in the crash parts industry to lower claims costs.