

DOT SCRAPS 'UNDERRIDE' PROPOSAL

The National Highway Traffic Safety Administration has abandoned efforts started in 1967 to require that the rear ends of heavy trucks be designed to prevent or minimize deadly underride when a car strikes a truck from behind. Termination of the proposed rule guarantees continued incompatibility in this respect between cars and trucks as they mix in highway traffic.

In a brief notice published in the "Federal Register" the safety administration says that, "Based upon the information received in response to the notices and evaluations of cost and accident data, the Administration has concluded that, at the present time, the safety benefits achievable in terms of lives and injuries saved would not be commensurate with the cost of implementing the proposed requirements."

In its 1970 annual report to the Congress (see related story on page 6) the National Transportation Safety Board cited incompatibility between cars and heavy trucks as one of "transportation safety's 10 worst enemies." The safety board mentioned "cars underriding trucks" as a contributing factor to incompatibility.

The safety board was established by the Congress to oversee federal transportation safety efforts.

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NHTSA first announced plans for a "rear underride guard" standard (docket 1-11) four years ago. Early in 1969, the proposed standard was issued. It noted that responses to the 1967 notice "confirmed" that "the underriding of rear ends of trucks and trailers by passenger vehicles in the course of a rear end collision constitutes a major hazard to life and limb of the occupants of the striking vehicles." Typical of this kind of crash was the much-publicized one in 1967 that took the life of actress Jane Mansfield and other occupants of the car in which she was riding. The car underrode the rear of a truck and sheared its top off.

A recent report issued by the Bureau of Motor Carrier Safety tends to buttress NHTSA's 1969 statement. Compiling 1969 accident reports of large trucks engaged in interstate commerce, the bureau found that 134 automobile occupants were killed and 2,017 injured as a result of rear end collisions with heavy trucks. How many of these deaths involved underride was not reported, but a BMCS official told Status Report that the overall figures represent only about 10 per cent of the country's truck population since the report relates only to interstate motor carriers having annual operating revenues of \$300,000 or more. This is "only the tip of the iceberg," he said.

A shortage of "good hard data" on the frequency of underride is cited by a NHTSA engineer as one reason for his agency's decision to drop the rulemaking
(cont'd. on page 3)

COMMENT

Trucking and oil industry reaction to NHTSA's now-abandoned underride protection proposal is characterized by the following docket comments:

— From the American Trucking Associations: "It is fundamentally unfair to place all of the onus on the innocent party, the truck, to protect the driver of the impacting vehicle."

— From the American Petroleum Institute: "After all, the automobile driver is the miscreant — he hits the rear of the truck, not vice versa"

Such arguments were offered for many years by those opposed to proposals for removing roadside "booby traps" that threaten the lives of car-crash occupants — non-yielding light and sign poles, spear-ended guardrail and the like — from the roadside environment.

The position that "good drivers don't hit things" writes off the driver who strays or is forced from the traveled way by a crying child, a mechanical failure, another car, sudden illness or other cause. It also writes off the lives of everyone else in the car.

That's true whether the thing hit is a rigid signpost too close to the roadside, a truck rear end whose design can shear off the car's top and its occupants' heads or some other environmental hazard. The claim that underride crashes, deaths and injuries are just a matter of "miscreant" drivers hitting "innocent party" trucks is precisely analogous to the arguments against removing roadside "booby traps" — and equally inhumane. (ABK, 7/12/71)

(cont'd. from page 2)

effort. But safety administration officials say the chief reason the proposal was dropped is that it could not be justified "on the basis of cost effectiveness." When Status Report requested a copy of NHTSA's cost analysis, safety administration officials said that it consists of "bits and pieces of information" that are being withheld from public inspection until they are "cleaned up."

As part of the "cost" issue, NHTSA officials contend that since revenue-producing vehicles are faced with weight restrictions, the added weight of underride guards would "decrease payloads." A Cornell Aeronautical Laboratory study of heavy-vehicle underride guards shows that a device "designed for a constant force of about 70,000 pounds" adds approximately 200 pounds to the weight of the vehicle. The most recent underride proposal, issued by the safety administration in August 1970, called for a test force of 50,000 pounds.

Truck manufacturers and owners had strongly criticized provisions of the proposal. They had contended that underride guards would not be feasible for vehicles such as fire trucks and cement mixers. They also argued that the proposed standard would pose an economic hardship on the trucking industry. The Truck Trailer Manufacturers Association and the Heavy Duty Truck Manufacturers Association both claimed that the rule would even harm the national economy. But no trucking group had gone so far as to ask that the safety administration completely abandon its rulemaking efforts.

Safety administration officials told Status Report that if new data indicate "we have erred" in dropping the proceeding, then the rulemaking may be resumed.

NHTSA WEAKENS BELT WARNING RULE

The National Highway Traffic Safety Administration has weakened for the third time its three-option interim occupant crash protection standard that is slated to become effective Jan. 1, 1972.

The interim standard, considered by NHTSA to be the "first phase" of its passive restraint requirements (FMVSS 208), gives auto makers a choice of three alternative approaches to achieve occupant protection criteria for cars manufactured between Jan. 1, 1972, and July 1, 1973. Two of the options require warning devices that give both audible and visual signals when outboard front seat lap belts are not fastened under certain conditions. The warning devices are intended to encourage safety belt use. (See Status Report, Vol. 6, No. 3, Feb. 15, 1971.)

Although auto maker requests for a delay in the rule have been denied by NHTSA, the agency now has weakened requirements for deactivation of the warning devices to the point that a driver or right front seat passenger need only fasten the lap belt buckle in order to shut down the warning system. Thus, car users will be able to make the warning light and buzzer permanently inoperative simply by leaving their outboard front seat lap belts buckled — and possibly tucked under the seat back — at all times. The system may also be deactivated whenever those belts are pulled more than four inches from their "normally stowed position."

Mercedes-Benz asked the safety administration to allow the warning system to be deactivated whenever the belts are fastened. A safety administration engineer who worked on the standard told Status Report that the German auto maker's request was granted even though NHTSA recognized that such an amendment would make it easier for auto occupants to subvert the warning system and avoid wearing safety belts.

He said that the warning device requirement, as previously written, could have been "defeated by using a clothespin or by tying the belt in a knot" to prevent it from retracting. (It can still be defeated in this way under the amended rule.) Safety administration officials reasoned, he said, that "if people want to (defeat the warning system) they're going to find a way to do it."

With that in mind, there is "no good reason" to prevent the warning system from being subverted by buckling the belts, he said. NHTSA feels that the warning devices — even though easily defeated — will "encourage people to wear (safety) belts anyway," he added.

Another revision allows auto makers to place a timing device on the warning system to shut the signal off after "a minimum activation period of one minute" even if the belts aren't buckled. The earlier version allowed no shut-off of the signal. The safety administration says it granted this General Motors request in order to "reduce the annoyance of the signal in situations where unfastening of the belt is necessary."

NTSB URGES LIQUID OXYGEN CARGO TANK RULES

Investigation of a liquid oxygen tank truck explosion in Brooklyn that killed two persons and injured 30 others has led the National Transportation Safety Board to recommend that the Department of Transportation begin rulemaking to reclassify oxygen as an "oxidizing material" and write regulations "at the earliest possible moment" to establish cargo tank specifications for oxygen.

The NTSB has also recommended that DOT adopt regulations which include a means of evaluating tank construction materials for liquid oxygen cargo tanks and seek to eliminate oxidizing "triggers" which could lead to catastrophic explosions. The Board also urged "mutually supportive technical exchanges" among agencies regulating hazardous materials.

The NTSB has further recommended that the Compressed Gas Association develop and refine voluntary safety standards for oxygen cargo tanks.

The liquid oxygen tank truck exploded outside Victory Memorial Hospital in Brooklyn as the truck was leaving the hospital's storage tank area. The explosion occurred because of "the abrupt oxidation, without warning, . . . of one or more reactant materials inside the cargo tank, which triggered an intense heat-producing reaction between the aluminum of the cargo tank and the oxygen cargo . . . ," the safety board says.

The following editorial is reprinted, with permission, from the June 14, 1971, issue of the "National Observer."

Safer at a Lower Speed

THERE IS LITTLE doubt that motor travel would be appreciably safer if vehicles were unable to exceed reasonable speed limits. Accordingly, the National Highway Traffic Safety Administration may adopt rules under which manufacturers would have to put a 95-m.p.h. ceiling on the speed capability of all cars, trucks, and motorcycles except police and emergency vehicles. The agency has also proposed that car speedometers be numbered no higher than 85 m.p.h., and that autos be rigged so that horns sound and flasher lights blink at speeds above 85.

Going one better, the National Transportation Safety Board has recommended that the top-speed capability of cars be set at the highest fixed legal speed limit of any state. The highest existing limit is 80 m.p.h., in Kansas.

Both the Traffic Safety Administration and the Safety Board are units of the Department of Transportation.

Their proposals appear to be popular. The Traffic Safety Administration invited public comments on its plan, with an April 30 deadline, and drew a record number of responses. Of the first 5,000 communicants, 46 per cent favored the 95-m.p.h. standard, 19 per cent took it

upon themselves to urge a lower limit, and 35 per cent opposed such restrictions.

Then came a change. Of 17,847 responses that had been tallied by May 12, 33.5 per cent backed the 95-m.p.h. plan, 14.8 per cent wanted lower limits, and 51.7 per cent said they were against the proposals.

Why the difference from the first count? Soon after comments were called for, a number of hot-rod magazines and other automotive publications editorially denounced the proposals and exhorted their readers to flood Washington with letters against them. Nevertheless, Federal officials say the latest count indicates broad support for speed curbs. "People who are against something are much more prone to write than those who favor it," notes a Safety Administration spokesman.

Of the two proposals, the Safety Board's makes the most sense. There is no defensible reason for the mass-production of vehicles that can exceed legal speed limits.

Hot rodders and others who oppose such regulations cite various objections, only two of which merit comment. It is argued that a car needs a power reserve for safe passing. Well, the reserve would still be there—except for passing somebody traveling at the legal speed limit.

Then there's the cost argument. The magazine *Road and Track* (which, like similar publications, depends heavily on automotive advertising for its existence) contends that speed-control systems might add \$25 to the cost of a car and asks whether

"a 4 per cent possible reduction in traffic fatalities is worth \$250,000,000 a year?" If that kind of reasoning sounds grotesque, consider *Road and Track's* premise: that building a car with a maximum 70 m.p.h. speed would cost more than building one that can go 125 m.p.h.!

What about the cost of having to buy far more horsepower than most people ever use? And the cost of casualties from speeding accidents?

Responsible drivers deserve—and undoubtedly want—protection from irresponsible ones. More than 56,000 persons were killed and 4,500,000 were injured on U.S. highways last year. A 1969 Department of Transportation study found that "fatalities might be reduced [some] 13 per cent if the speed maximum were set as low as 60 m.p.h."; at 70 m.p.h., an 8 per cent cut might be possible.

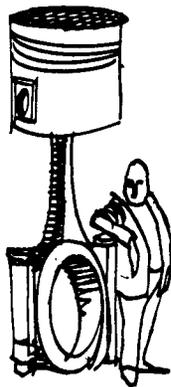
The department does not propose to require governors, but rather engine and gear-ratio designs that limit speed. Officials say that a car's performance at lower speeds would not be affected, and ample power would be available for safe passing. Hot rodders would be allowed to modify their cars for track competition.

Also, though much of the opposition to the Government proposals comes from people who have a vested interest in the automotive industry, there are no valid reasons to think that vehicle sales would decline.

And the countless law-abiding motorists who live in mortal terror of speed demons could breathe easier.

The Safety Board plan should be adopted—soon.

—MORTON C. PAULSON



*DOT has suggested this approach. However, it is prevented by law from prescribing specific designs.

TRUCK-CAR 'MIXING' SCORED BY NTSB

The mixing of trucks and buses with smaller vehicles on the same roadways has been listed by the National Transportation Safety Board as one of six serious highway safety problem areas needing increased federal attention.

"Sixty times as many fatalities occur in passenger cars as in large interstate trucks when these vehicles collide, based on 1968 interstate vehicle accidents," the NTSB has found. "The fatality toll involved is more than 1,000 lives."

The NTSB pointed out that differences in size and weight of the vehicles "obviously are factors" but that detailed causes have "yet to be identified and only a few experimental efforts have been made" to cope with the problem.

"Broad factors involved, however, include trucks overriding cars and cars underriding trucks, the slower stopping capability of the heaviest trucks and trucks sometimes crushing passenger cars in overturn accidents," the NTSB said.

Dr. William Haddon, Jr., president of the Insurance Institute for Highway Safety, made similar points early this year in a paper presented to the Automotive Engineering Congress of the Society of Automotive Engineers. (See Status Report, Vol. 6, No. 1, Jan. 18, 1971.)

The NTSB's remarks were included in its fourth annual report to Congress, released recently. The Board is charged with investigating safety failures in all modes of transportation and making recommendations for countermeasure activities to the Secretary of Transportation and appropriate DOT administrators.

The annual report, for the year 1970, listed as "signs of encouraging progress" in highway safety a two per cent reduction in fatalities, which it termed the first significant decrease in more than a decade; the more than \$100 million Alcohol Safety Countermeasures Program of the National Highway Traffic Safety Administration and "other safety programs on federal, state and local levels (which) promise further advances," and increased awareness by both public agencies and private industry.

"Yet the challenge remains a staggering one," the Board said. "In spite of the reduction in highway fatalities, for example, the nation lost more than 55,000 lives in highway accidents in 1970. The entire 1970 transportation fatality toll was nearly 60,000."

"As a sobering measure of the task remaining" the Board noted ten "serious transportation safety problems." In addition to the truck-car "mix" on highways, these six were related to highway transportation loss reduction:

ALCOHOL — Its abuse "may be involved in roughly half of the highway fatalities" and may account for as many as 25,000 deaths annually in all forms of transportation. "Available data suggest that alcohol is the most deadly single crash-causing influence on our nation's highways. But this same data leave much to be desired in telling us related causes and contributing factors in highway accidents in which alcohol is known to be involved."

The Board noted that past efforts have centered on enforcement and said that "failure . . . can be traced largely to difficulties in convicting offenders, to inconsistent enforcement and penalties and to the fact that problem drinking often is involved."

The report added, "Control of drinking by persons operating vehicles in the transportation system also can be as difficult as efforts to reform other types of antisocial behavior."

CRASH PACKAGING — Occupant "packaging" remains largely ineffective when compared against available technology. "Thousands of persons die each year because their automobiles . . . do not incorporate all or even most of the technically available 'crashworthiness' — the ability of the machine to absorb damage and protect its occupants," the Board said.

The NTSB pointed out that a high proportion of fatality-causing crashes involve impact speeds of less than 60 miles an hour, "an impact speed which, technically, crashworthiness improvements can make . . . survivable."

YOUTH — More than 17,000 persons between 15 and 24 years old die each year in highway crashes. "The total of young people who are drivers in fatal highway accidents is 60 per cent greater than the 15-to-24 age group's share of the driving population. Youthful driver behavior thus has its deadly effect on fatality rates among other age groups as well."

The Board added that when both drivers and passengers are considered, "These people are killed in numbers representing nearly twice their share of the population."

RAIL CROSSING — More than 1,400 persons are killed each year in crashes at rail-highway grade crossings. "One fatality occurs (at such crossings) for every three injuries, as compared with one death for every 40 injuries in all highway accidents."

Grade separation, however, has proven expensive. The Board noted, "Estimates of the cost of separating all grade crossings are as high as \$100 billion." The Board said that "sophisticated crossing protection and warning devices also are expensive" and that private and public agencies involved "find cost-sharing agreements difficult."

PEDESTRIAN SAFETY — "Nearly one-fifth of the nation's highway fatalities are pedestrians — just under 10,000 in 1969. In urban areas this grim ratio approaches 50-50, and in big cities, three quarters of highway fatalities involve pedestrians." While the number of overall crash fatalities was lower in 1970, "the pedestrian fatality total was not," the Board said.

The NTSB currently is conducting a "comprehensive study of highway pedestrian safety and current federal efforts to improve it." The Board's report singled out one area for improvement — "adequate design changes (in motor vehicles) which could reduce the toll."

HAZARDOUS CARGO — The NTSB also listed the "potential for catastrophe" involved in the transportation of hazardous materials in all modes of transport, including "highway accidents involving high explosives or extremely toxic materials." Some of these and crashes or failures in other modes of hazardous materials transportation, the Board noted, "have caused very large loss of life in single accidents in the past, and all threaten such catastrophe today. Yet comprehensive safeguards to limit the scope of such disasters remain to be developed."

Copies of the Board's 1970 annual report may be obtained by writing the National Transportation Safety Board, Publications Section, Washington, D. C. 20591.

'BOOBY TRAP' RADIO SERIES AVAILABLE

A 13-week series of public service radio shows exploring the national threat of roadside "booby traps" is now available to safety councils, schools, law enforcement agencies and other organizations that want to use them for educational purposes or place them with local radio stations.

The series of four-minute daily programs was produced by the Home Insurance Company of New York with the cooperation of the Insurance Institute for Highway Safety. TV personality Hugh Downs and Institute Vice President Albert Benjamin Kelley discuss the pervasive role of roadside "booby traps" in contributing to crash losses, interview experts on highway loss problems, and take calls from witnesses and victims of crashes aggravated by roadside hazards.

Included are interviews with U. S. Rep. John Blatnik (D-Minn.), former chairman of the investigative subcommittee that first brought Federal attention to bear on the problem; Joseph Linko of New York, who has long crusaded to bring the hazards of highway booby traps to public attention, and officials and researchers who are working to rid U. S. highways of such hazards.

A preview record and single seven-disc sets of the 65-part series are available to appropriate organizations, on written request to Mr. Richard Doyle, Secretary, Public Relations, The Home Insurance Company, 59 Maiden Lane, New York, N. Y. 10008. Requests should include an explanation of the show's use intended by the organization.

MORE SOCIAL-ACTION EFFORT BY INSURERS URGED

An insurance company president has called on his industry to spend more attention and money on programs for reducing social losses.

Speaking at the recent annual meeting of the American Bar Association in New York City, James S. Kemper, Jr., president of Kemper Insurance Group, proposed that "the insurance industry should spend \$50 million over the next five years for social action — programs directly related to the prevention, reduction and control of socio-economic losses to our society.

"This would represent less than 1/100th of 1 per cent of conservatively projected life, health and property and liability premiums to be written during that period. It would be in addition to the large sums of money already being spent by individual insurance companies for specific loss prevention programs."

Kemper singled out drug and alcohol abuse and "the auto and its loss-producing consequences" as two of "many" candidate targets for such social action programs.

"The fact is," he said, "that the fundamental causes of higher insurance costs . . . were not created by our industry at all. Nor are we responsible for economic and social factors such as inflation, unemployment, poor housing, poor educational facilities and other conditions leading to socio-economic losses.

"However, we have a stronger practical motivation than any other industry to engage in social action programs to solve and prevent these loss-producing conditions, because we operate the loss payment mechanism. Therefore, both as loss payers and as citizens, it is in our financial and civic interest to make a major commitment in money and people in the field of social action as it may relate to loss prevention."

The usefulness of the private insurance mechanism, Kemper concluded, "deteriorates exactly to the extent that loss prevention is outpaced by loss occurrence, or . . . to the extent that the techniques of loss prevention lag behind the combined effect of technological advances and social dislocations in our society. If we do not find some way to catch up by the kind of social action I have been trying to describe, it seems likely to me that our society will ultimately be forced to pay its own losses out of tax resources through an expensive and comparatively less efficient government mechanism, without making use of the private insurance mechanism which has existed for so long and has performed so competently and honorably in the past."

N. C. STUDY FINDS 'REPEATER' THEORY WEAK

Most highway crashes involve drivers with no record of traffic violations in the preceding two years, not recent "repeaters," according to a North Carolina analysis.

And, "If you took all drivers with three or more violations in the past two years off the highway and kept them off 100 per cent effectively for the whole (next) two years, North Carolina would still experience 96.2 per cent of the accidents it would have had anyway," says Dr. B. J. Campbell, director of the Highway Safety Research Center at the University of North Carolina and author of the analysis.

(Actually, according to a California Department of Motor Vehicles Study, some 33 per cent of drivers whose licenses are suspended and 68 per cent of those whose licenses are revoked continue to drive anyway. On that basis, 100 per cent effectiveness of driver removal is generally considered impossible by Dr. Campbell and others in the highway loss research field.)

Campbell's study, summarized in the spring issue of "Signal 99," a publication of the North Carolina Governor's Highway Safety Program, was based on an analysis of more than two million North Carolina drivers' records.

Not only did the study find that the relationship between crashes and past violation histories is "weak" for most drivers, it also found that 80.7 per cent of North Carolina drivers who have crashes in a two-year period do not have crashes in the next two-year period.

". . . the fact is that the overwhelming majority of people who have an accident in one time period do not have an accident (in) the next time period," said "Signal 99" in characterizing the study.

A notable exception to the finding, it added, is the abusive drinker who drives. North Carolina drivers with a history of drunken driving during one two-year period were found to be involved in more accidents than the average driver during the next two years, the publication quoted a state Department of Motor Vehicles statistician as reporting.

Campbell concludes on the basis of his study that highway safety administrators must "modify the belief that the repeater is the main source of trouble on the streets and highways . . . It is wrong to lead people to believe that by concentrating chiefly on the accident repeater we will make substantial inroads on the problems of traffic safety in North Carolina or the nation."

Single copies of the report are available from the Highway Safety Research Center, University of North Carolina, Chapel Hill, N. C. 27514.

BRANCH NAMED TO HEAD ADVISORY COUNCIL — Judson B. Branch, chairman of the board of Allstate Insurance Companies, has been named chairman of the Department of Transportation's National Motor Vehicle Safety Advisory Council. He succeeds the late Senator Edward J. Speno of New York.

Eight new members have also been appointed to the council that was created by the National Traffic and Motor Vehicle Safety Act of 1966 to consult with the Secretary of Transportation on federal motor vehicle safety programs.

New members of the council are Leslie N. Bland, automobile dealer, Chicago, Ill.; Katherine Burgum, business woman, Arthur, N.D.; Col. James J. Hegarty, director of the Arizona Department of Public Safety, Phoenix, Ariz.; Dale C. Hogue, research director, Automotive Parts and Accessories Association, Alexandria, Va.; Dr. Donald F. Huelke, University of Michigan Medical School, Ann Arbor, Mich.; Trevor O. Jones, advanced systems engineer, General Motors Corporation, Warren, Mich.; Lawrence M. Patrick, Wayne State University Bio-Mechanics Research Center, Detroit, Mich. and Dr. George S. Sutherland, president, Rocket Research Corporation, Redmond, Wash.

Three members reappointed to the council are Dr. Allen V. Astin, former director of the National Bureau of Standards; William A. Raftery, executive vice president, Motor and Equipment Manufacturers Association and Walker Sandbach, executive director of Consumers Union.

'NATIONALIZATION' SCORED — A National Committee on Uniform Traffic Laws and Ordinances official has criticized what he sees as a trend toward "increasing nationalization of highway safety." Edward F. Kearney, executive director of the committee, told a recent American Association of Motor Vehicle Administrators regional meeting that it is "inconsistent" with the goal of "voluntary-cooperative-partnership" safety programs for NHTSA to "stress 'preemption' of certain state laws.

"Recent proposed (federal) rules on bumpers, emergency triangles and equipment approval mention the supreme role of the federal government. Some federal officials seek meaningless and unnecessary duplication of federal motor vehicle safety standards while other federal officials labor under the erroneous belief that states must comply with highway safety program standards Such decisions do not foster a spirit of cooperation nor do they return power to the states. They also needlessly weaken the influence of valuable state institutions that make significant contributions toward safety and freedom on our highways."

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STATUS REPORT

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