the highway loss reduction

## STATUS REPORT

# INSURANCE INSTITUTE for Highway Safety

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# NHTSA Proposes Bus Seat Standards

The National Highway Traffic Safety Administration has proposed a standard that it says is intended to "reduce injuries to bus passengers by providing seats that protect passengers rather than contribute to their injuries." Although the standard applies to buses of all types manufactured after Sept. 1, 1974, it is aimed primarily at school buses, according to an NHTSA spokesman.

The proposal gives bus makers the option of installing lap belts for passengers, but stops short of requiring them. On four separate occasions over the last six years, the National Transportation Safety Board has investigated bus crashes in which occupant ejection played a significant role in passenger deaths. In each report the board urged that the safety administration require belts or other restraining devices in buses. Last year, in a study of its own, NHTSA found that "ejection of occupants" was a "definite" factor in causing death and other injuries in a Colorado school bus crash. (See *Status Report*, Vol. 7, No. 10, May 22, 1972.)

NHTSA's proposal gives bus makers two options to make bus seats "stronger, higher and more protective." Under one option manufacturers may install lap belts. If belts are installed they must have warning devices to alert both the bus driver and passenger when any one of the belts is not in use. Passengers would be warned by both audible and visual signals. Drivers would be warned by visual means: apparently, a panel of lights that would indicate which passenger was not using his belt.

Lowell Dodge, director of the Center for Auto Safety, told *Status Report* that the proposal is "better than we expected" but accused the safety administration of making the belt option so "ludicrous" that it will discourage bus makers from installing belts. A safety administration official told *Status Report* that the proposal was not written in a way that would encourage bus makers to install belts; the "primary" goal of the proposal is to improve bus seats, he said.

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Under both options of the proposal, forward facing seats would have to withstand three performance tests: "An upward performance test... to reduce the chances that the seat will tear loose in a rollover. A rearward performance test... to strengthen the seat in the rear-end collision that is particularly characteristic of school buses. A forward performance test... that will not only strengthen the seat in forward impacts but will require the seat to deflect in a controlled manner that absorbs the energy of the occupant." Both options would also require "seat backs to be at least 28 inches high."

#### PROPOSAL'S SHORTCOMINGS

- The standard would not apply to side-facing or rear-facing seats commonly found on "short route" buses.
  - The proposal has no requirements for seat strengths in oblique or side force loadings.
- The proposal does not address hostile window frame structures, overhead hand grasps, foot rests, luggage racks, aisle poles or other needlessly hazardous bus interior features that are located outside a small, designated zone directly ahead of the passenger seats.

If bus makers choose to install belts, seat anchorages would have to be stronger than on seats without belts. "Forward" and "rearward" seat strength performance tests would also be modified. Under the proposal, passenger belt anchorages (which are required to be attached to the seat) would be tested under a pull of only 1,000 pounds. Under a standard already in existence (FMVSS 210), seat belt anchorages for passengers and drivers of cars and trucks and for bus drivers are tested under a pull of 5,000 pounds.

NHTSA has issued no proposals that would alleviate what the NTSB has called "cookie cutter" edges that confront passengers when needlessly weak sheet metal tears in bus crashes. Nor has the agency proposed standards to correct other structural weaknesses in buses that have been documented in numerous reports by the NTSB and in one report by NHTSA's own investigators. (See *Status Report*, Vol. 5, No. 15, Sept. 1, 1970.)

The proposal is intended to "eliminate exposed metal bars" on seat backs. The safety administration says, "There is evidence that these hard surfaces are often the causes of injury, particularly to the head and face. A compilation of data from oral surgeons indicated that approximately 1,350 mouth injuries occurred during 1971. This represents only a part of the painful and disfiguring injuries that are due to these features."

NHTSA's proposal follows growing efforts in the Congress to pass legislation that would require NHTSA to issue occupant protection standards for buses. So far this year two bills (S. 847 and S. 611) aimed at school bus safety have been introduced in the Senate and eleven bills (H.R. 1012, H.R. 1013, H.R. 1108, H.R. 2862, H.R. 2881, H.R. 3665, H.R. 3666, H.R. 4187, H.R. 4470, H.R. 4473 and H.R. 4654) have been introduced in the House.

Comments on NHTSA's proposed rule should be sent to: Docket Section, National Highway Traffic Safety Administration, Room 5221, 400 Seventh Street, S.W., Washington, D.C. 20590 prior to May 15, 1973.

# DOT Agencies Drop Opposition To Dual Licensing

The Department of Transportation has dropped its historically strong opposition to so-called "dual licensing" — a practice that would allow a truck driver to continue driving commercially even though he has lost his license to operate his personal vehicle.

The most recent step in that direction came when the Bureau of Motor Carrier Safety issued a rule allowing a professional driver to continue driving his commercial vehicle after being convicted of violations, including drunk driving violations, committed in his private vehicle.

Earlier, the National Highway Traffic Safety Administration withdrew its opposition to legislation in Illinois that would allow a driver to operate a commercial vehicle after suspension or revocation of his privilege to drive his personal vehicle.

It is expected that the new DOT position will result in a renewed push at the state level for laws allowing dual licensing.

The new BMCS rule replaces one that disqualified a driver from operating a commercial vehicle in interstate commerce if he had been convicted, as a private driver, of certain traffic or criminal offenses such as drunken driving. In issuing its rule the bureau said that "both labor organizations and members of the trucking industry attacked the notion that conviction of certain criminal offenses committed while a person is operating his private automobile should thereafter disqualify that person from serving as the driver of a commercial motor vehicle."

The "principal area of controversy involves the driver who has been convicted of driving his private automobile while intoxicated," the bureau said.

When the old rule was established "there was considerable evidence that intoxicated drivers posed a critical safety problem. In light of the hazards that those drivers represented, the Administrator determined

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## Hartman To Head Motorcycle 'Image' Effort

The motorcycle industry has recruited the deputy administrator of the National Highway Traffic Safety Administration to head up a new nationwide effort to "improve the image of motorcycles," according to an industry spokesman.

Dr. Charles H. Hartman is resigning his NHTSA post to take a position, effective March 10, as director of the motorcycle industry's newly created "Safety and Education Foundation," said Roy Kessler, an official of the organization, which is funded by one domestic and five foreign motorcycle manufacturers.

Kessler said the foundation's first project will be to launch an all out effort to get motorcycle education courses into public school systems. Provision of free motorcycles to public and private schools will be part of the effort.

Although the foundation is "primarily concerned with rider safety," Kessler said, its sponsors "wouldn't turn down any fall-out that would produce sales." Kessler told *Status Report* that the foundation will "push" to get motorcycle education courses "into all the schools we can." The organization also plans to urge that the military services and private industry offer such courses.

As part of its program the foundation will also urge colleges and universities to turn out individuals trained to conduct motorcycle education classes, Kessler said.

The first public announcement that Hartman will head the newly formed motor-cycle industry foundation was made at a recent luncheon meeting of "The Road Gang," a group of Washington-based officials involved in the highway building industry.

that a person who is convicted of driving while intoxicated should thereafter be precluded from driving commercial motor vehicles, even though the offense was committed in a personal motor vehicle."

Now, the bureau says, there is a "trend towards rehabilitating, rather than punishing drinking drivers" and "automatic disqualification of drivers who are convicted of driving while intoxicated is out of phase with the current approach toward identification and treating these drivers."

The BMCS's about-face on dual licensing went largely unnoticed until publicized by Traffic Safety for Michigan, a privately financed educational association based in Lansing, Mich.

Several months before the BMCS issued its new rule, the NHTSA retreated from its strong opposition to a dual licensing proposal in Illinois.

Originally, NHTSA officials had told Illinois governor Richard B. Ogilvie that the legislation violated the "one license concept" of the federal standard on driver licensing. The standard (NHSPS 305) specifies that every state shall require that "each driver holds only one license which identifies the type(s) of vehicle(s) he is authorized to drive." (Under the Highway Safety Act of 1966 the Secretary of Transportation can withhold all of a state's federal highway safety funds and 10 per cent of its federal highway construction funds if he determines that a state is not satisfactorily implementing the national highway safety program standards.)

An NHTSA official told *Status Report* that, unlike other states that had considered dual licensing, Illinois planned to issue "only one piece of paper called a license" and therefore its new law does not technically violate the federal standard calling for one license.

Historically NHTSA has steadfastly opposed attempts to implement dual licensing in other states. In 1970 NHTSA warned Michigan that it would face loss of federal revenues (under the 1966 safety act) if dual licensing legislation that had passed the state legislature became law. The agency repeated that warning in 1971 when such legislation appeared on the way to becoming law in Missouri. In both cases the governors of those states vetoed the bills. NHTSA had also successfully opposed a 1971 Illinois attempt to implement dual licensing.

# Pennsylvania Tallies Boobytrap Deaths

A statewide tally in Pennsylvania has revealed that more people died from crashes of autos into fixed roadside hazards than from crashes with other cars during a surveyed six-month period recently.

The statistical summary found that utility poles and trees were responsible for nearly half the 357 deaths from cars hitting fixed objects during the first half of 1972. By comparison, 290 persons died in crashes between cars.

The unusually detailed study makes Pennsylvania one of the few states to measure adequately the extent of deaths involving roadside hazards. Researchers in the Commonwealth's Department of Transportation listed all the state's crashes by nature of the first object struck.

The breakdown showed the following hazards among fixed objects, with the number of deaths attributed to each:

	TOTAL
FIXED OBJECT HIT	<b>FATALITIES</b>
Utility or Light Pole	81
Tree	79
Embankment	29
Guard Rail	29
Bridge Abutment	19
Parked Vehicle	17
Bridge Railing or Wall	15
Permanent Traffic Sign	15
Median Barrier	14
Curb	10
Culvert	8
Snow Bank	4
Permanent Traffic Signal	2
Miscellaneous Object	35

Of the state's 1,040 traffic fatalities from January through June of 1972, more than one-third came from cars striking fixed objects. The other leading causes of fatalities were listed as car impacts with the following: another car or cars, 290; pedestrians, 232; and trucks, 98.

Meanwhile, additional evidence of the real-world threat of roadside boobytraps has come from two recent articles by traffic engineering experts.

More than half the fatal crashes on the Interstate Highway system in the four years between 1968 and 1971 were single-vehicle run-of-the-road crashes, according to Harold R. Hosea and Benjamin V. Chatfield in the December, 1972, issue of *Traffic Safety*.

The authors, who are Federal Highway Administration officials, state that "in most of these accidents, a fixed object was struck."

In a "Dynamic Design for Safety" seminar last year, Carlton Robinson, vice president of the Highway Users' Federation for Safety and Mobility, presented a "mythical mile" of composite Interstate highway. Reporting on the conference in the September, 1972, issue of *Traffic Engineering*, Assistant Editor Barbara Moskowitz noted:

"Under the 'fixed object' category, which accounts for 26 per cent of all accidents on this mythical mile, one thing in particular stands out: all the fixed objects involved in these accidents were put there by the highway designer except for the trees, and even some of those were designed in."

#### Clarification

The National Transportation Safety Board's Special Study, Commercial Motor Vehicle Braking, reported in Status Report, Vol. 8, No. 4, Feb. 12, 1973, compared the braking capabilities of a Boeing 747 with those of heavy commercial vehicles. In its comparison, the board cited a federal standard (FMVSS 121) that will require that trucks manufactured after September, 1974, meet certain braking requirements.

Status Report implied that the federal standard requires truck brakes to meet certain torque levels (given amounts of twisting or retarding forces in braking). Torque is a function of, among other things, weight ratings, brake chamber pressure and wheel diameter, which may vary from truck to truck. The standard does not specifically set forth torque levels as requirements.

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