

# ZERO ALCOHOL

## AND OTHER OPTIONS

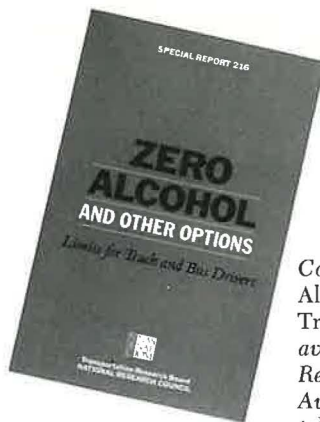
### *Limits for Truck and Bus Drivers*

The results of the Transportation Research Board's 1-year study on blood alcohol limits for drivers of heavy vehicles and release of the report of the study were announced at a news conference and public symposium held at the National Academy of Sciences in November 1987. The findings and recommendations have been summarized in *Special Report 216—Zero Alcohol and Other Options: Limits for Truck and Bus Drivers*, published by TRB.

In the Commercial Motor Vehicle Safety Act of 1986, Congress requested that the National Academy of Sciences assess the appropriateness of alternative blood alcohol concentration (BAC) standards for commercial vehicle operators. The legislation, passed on October 27, 1986, requested a report within 1 year of enactment, the results of which could be used by the Secretary of Transportation to establish a BAC standard for commercial drivers. The law provides that if a final rule is not issued by the secretary by October 1988, the BAC standard will automatically become 0.04 percent. The Commercial Motor Vehicle Safety Act also sets strict penalties: drivers in violation of the standard are subject to a 1-year license revocation on first conviction and a lifetime license revocation on second conviction.

In answer to the request from Congress, the Transportation Research Board convened an expert panel of 14 members, chaired by M. W. (Bud) Perrine, Director of Boston University's Alcohol Research Unit, to conduct the study. The panel included members with expertise in alcohol and behavior, toxicology, law, deterrence, trucking, statistics, and human factors engineering.

*Excerpts from Dr. Perrine's opening statement at the news conference are presented in the following paragraphs.*



Copies of TRB Special Report 216—Zero Alcohol and Other Options: Limits for Truck and Bus Drivers (price \$20) are available from the Transportation Research Board, 2101 Constitution Avenue, N.W., Washington, D.C. 20418; telephone 202-334-3214.

The topic today is the drinking and driving of commercial truck and bus drivers while on the job.

The specific questions put before our committee were: At what concentration of alcohol in the blood should an operator be deemed "under the influence of alcohol"? What are the costs and benefits of different blood alcohol concentration (BAC) enforcement standards?

Our study was requested in response to the Commercial Motor Vehicle Safety Act of 1986, which directs the Secretary of Transportation to set a national blood alcohol standard for operators of commercial vehicles. The law also instructs the secretary to request a National Academy of Sciences study on alternative blood alcohol standards for drivers of commercial trucks and buses. The TRB committee was organized under the National Research Council, the principal operating agency of the National Academies of Sciences and Engineering.

The basic conclusion of the committee is that any consumption of alcohol on the job by drivers of heavy trucks and buses is inappropriate for the work place and incompatible with traffic safety. The research evidence indicates that driving performance decreases at any BAC above zero and that the risk of a crash increases sharply as BAC rises.

While the committee unanimously agreed that truck and bus drivers should maintain a zero blood alcohol level while on the job, the members differed on what the penalties should be for violations. A three-fourths majority of the

committee recommended that the national standard for drivers of heavy commercial vehicles (weighing more than 26,000 lb, such as tractor trailers, concrete mixers and dump trucks, passenger buses, and other large commercial vehicles), be set at zero BAC. We suggest that penalties for violating this standard be graduated depending on the severity of the offense. For violators with BACs of 0.04 percent and higher, the majority of the committee agrees with the penalties established by the Commercial Motor Vehicle Safety Act of 1986—namely, a 1-year commercial license suspension on first conviction and lifetime loss of a commercial operator's license on second conviction. For drivers tested with BACs above zero but less than 0.04 percent, the majority of committee members suggests suspension of the license for up to 30 days on first conviction and for up to 1 year on second and subsequent convictions.

A minority of the committee members said that the 1-year license suspension was too severe a penalty for first-time offenders with a low BAC. These committee members favored invoking the 1-year suspension only for measured BACs of 0.10 and higher, the standard now used in most states. At the same time, these committee members noted that the standards should be strictly enforced at these levels.

All of the committee members agreed that the specific blood alcohol standards set are less important than the degree of vigor applied to enforcement. Among the ways to accomplish vigorous en-





*Members of the study committee respond to questions at news conference held at the National Academy of Sciences to announce findings of TRB's study on blood alcohol limits for drivers of heavy vehicles and release of the published report. From left, L. Nargelenas, Illinois State Police; M. W. (Bud) Perrine, study chairman, Boston University Alcohol Research Unit; R. Forman, Greyhound Lines; and O. Pendleton, Texas Transportation Institute.*

forcement would be to require drivers suspected of drinking on the job to provide breath samples as part of vehicle safety inspections or at truckweighing stations. Testing for alcohol in the blood could also be required following all heavy-vehicle crashes involving injuries. This increased enforcement would have to be accompanied by an education campaign to alert commercial vehicle drivers to the new regulations and testing procedures.

Some may wonder why commercial drivers should be held to a higher standard than others on the highways. The answer is that commercial drivers have a demanding job: Faster reflexes and a higher level of alertness are needed to operate within the same margins of safety as do drivers of passenger automobiles. Even without the presence of alcohol, driving a heavy truck or bus is a hazardous occupation. The occupational fatality rate among these workers is five times the national average for all other jobs. Heavy vehicles take longer to stop and accelerate, occupy more space on the road, swing wider on turns, and have more complicated controls to monitor than do automobiles. Moreover, very large vehicles such as twin

trailers operate close to the design limits of our highways, meaning that even ordinary tasks such as turning off on an exit ramp require increased concentration. Driving is also an inherently repetitive task, and alcohol acts as a sedative, magnifying this effect. The combination of a demanding task and adverse working conditions requires that

commercial drivers operate their vehicles unimpaired by the numbing effects of alcohol.

Compared with automobile drivers, operators of heavy commercial vehicles have good records of sobriety on the road. While 45 percent of all fatal crashes involve alcohol, only 14 percent of heavy-vehicle crashes involve drinking. Nevertheless, some 750 fatal crashes involving heavy trucks and buses occur each year directly as a result of drinking and driving by commercial vehicle operators.

Our committee estimated that 130 to 250 lives could be saved each year and between 1,700 and 3,000 injuries prevented by vigorous enforcement of a zero BAC for commercial drivers. In contrast, strict enforcement of the 0.10 percent BAC standard might prevent 80 to 140 deaths and 1,100 to 1,800 injuries.

The cost of this stricter enforcement—in additional personnel, equipment, and training, as well as the economic costs of driver delays for road checks—would be expected to total about \$50 million annually for the zero BAC standard, compared with about \$30 million per year for the 0.10 level. The benefits of stricter enforcement—in the form of lower medical costs, less property damage, decreased motorists' de-



*Television and press reporters at news conference announcing results of TRB study.*



*M. W. (Bud) Perrine, Study Committee Chairman, reports on the study findings and recommendations at the public symposium.*

lays, and the avoided pain and suffering of fewer deaths and injuries—would greatly outweigh the costs of such programs.

The need for vigilance against drinking and driving by operators of heavy commercial vehicles may be justified, but can rigorous enforcement of a zero or low blood alcohol level be accomplished while protecting the drivers' constitutional rights? Legal evidence of BACs is gathered through extremely accurate tests conducted under laboratory conditions following arrest. Enforcement of a zero or low BAC for heavy-vehicle commercial drivers would clearly be difficult without the benefit of portable screening devices that indicate the concentration of alcohol in the breath and thereby help police officers establish probable cause for an arrest. However, there is some uncertainty about whether use of these devices constitutes the type of unreasonable search and seizure that is prohibited by the Fourth Amendment to the Constitution.

We suggest that the federal government and the states might avoid some of the constitutional issues raised by BAC screening through regulations that make agreement to submit to such testing a condition of licensing. Enforcement of low blood alcohol standards could be further expedited if state motor vehicle departments suspended licenses administratively rather than referring these cases to the civil or criminal courts.

I would like to close my remarks by emphasizing the committee's view that there is no such thing as a safe level of alcohol consumption before or during operation of heavy trucks and buses. The committee majority favors an explicit zero alcohol standard because it provides an unequivocal, clear message to drivers: no amount of alcohol in the bloodstream—whether from a beer at lunch or from a hangover—is compatible with the safe operation of commercial vehicles.

#### **Committee for the Study of the Benefits and Costs of Alternative Federal Blood Alcohol Concentration Standards for Commercial Vehicle Operators**

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