



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: July 14, 1986

In reply refer to: H-86-27 through -34

Honorable Ray A. Barnhart
Administrator
Federal Highway Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Log. H-474 L

On July 5, 1984, a tractor-semitrailer was following a car too closely on wet pavement near Ashdown, Arkansas. When the car slowed suddenly, the truck had to brake hard to avoid hitting it. The truck jackknifed, and the tractor rotated into the oncoming lane and struck a police car. All four police officers in the struck vehicle were killed. 1/

A tractor-semitrailer collided head-on with a church van in Lemoore, California, on October 8, 1982, killing all but 1 of the van's 11 occupants. There had been a stalled car blocking the truck's lane at an intersection. Instead of slowing down, the truck driver attempted to go around the car, and he lost control of the combination vehicle in the process. 2/

These are examples of the heavy truck 3/ accidents investigated by the National Transportation Safety Board in which driver performance was a major factor. The operation of heavy trucks places special demands on the driver, demands he or she may not always be able to meet. Long stopping distances, the possibility of brake fade on steep hills, restricted maneuverability, cargo shifting, and the danger of jackknifing are only a few of the problems that drivers of heavy trucks must face constantly, but which automobile drivers experience rarely, if at all.

1/ Highway Accident Report--"Collision of DeQueen, Arkansas, Police Department Patrol Car and Terrell Trucking, Inc., Tractor-Semitrailer, U.S. Route 71, Ashdown, Arkansas, July 5, 1984" (NTSB/HAR-84/07).

2/ Highway Accident Report--"J.C. Sales, Inc., Tractor-Semitrailer and Calvary Baptist Church Van Collision, State Route 198 at 19th Avenue near Lemoore, California, October 8, 1982" (NTSB/HAR-83/02).

3/ According to the definition used by the National Highway Traffic Safety Administration, all of the following are considered heavy trucks: 1) single-unit (or "straight") truck with gross vehicle weight greater than 26,000 pounds; 2) tractor-trailer combination; 3) truck pulling one or more cargo trailers; and 4) tractor pulling no trailer. A medium truck is any single-unit truck with a gross vehicle weight between 10,000 and 26,000 pounds. While this recommendation letter deals generally with drivers of heavy trucks, many of the observations apply also to those driving medium ones. Light vehicles, such as pickup trucks, are excluded.

4361/312B

Truck driving is a specialized skill, distinct in many ways, and more demanding than operating a smaller vehicle, such as a car. However, far too many people are able to enter the field without having first acquired that skill. The Safety Board has completed a study that examines the system that prepares candidates for employment as truck drivers and then initially places them into service. ^{4/} The objective of the study was to identify weaknesses in the system, to describe current efforts for improvement, and to offer recommendations for ways to augment those efforts.

In 1984, Secretary of Transportation Elizabeth Dole announced that the "Proposed Minimum Standards for Training Tractor-Trailer Drivers" were publicly available. The Standards were prepared by the Bureau of Motor Carrier Safety (BMCS), a division of the Department of Transportation's Federal Highway Administration (FHWA). The Standards call for a minimum 320-hour course, 8 weeks if taken on a full-time basis.

A truck driver training school could take a copy of the Standards and fashion its own curriculum in accordance with those specifications. In 1986, however, the BMCS began offering an alternative: a ready-made curriculum, developed by BMCS contractors and staff, that meets all the Standards. The Model Curriculum for Training Tractor-Trailer Drivers consists of separate manuals for the school administrator, the instructor, and the student.

The Safety Board believes that these Standards should be incorporated into a training requirement for truck drivers. Safe truck driving requires special skill, and the most reliable way to learn that skill is through formal training. Some prospective truck drivers recognize this and seek such training of their own volition, but others will need a regulatory requirement to prompt them to obtain the necessary instruction. A Federal regulation could impose a training requirement on interstate drivers. Some intrastate drivers may eventually become subject to a similar rule, because some State regulations parallel the Federal ones. However, to reach all truck drivers, interstate and intrastate, the Federal qualification standards, including a training requirement, should be made criteria for a national truck driver license. The Safety Board has issued recommendations calling for such a license.

It is not enough to stipulate that a prospective truck driver merely attend classes. To meet the recommended requirement, he or she should have to demonstrate proficiency in the skills that were taught. The BMCS Proposed Minimum Standards include instructions on how schools should test for such proficiency. Graduation standards are outlined. The BMCS is planning to develop a Final Examination Test Battery, consisting of a written test, a performance test on a closed track, and a road test.

One way to establish a Federal training requirement using the BMCS Proposed Standards would be through a revision in Sec. 391.11 of the Federal Motor Carrier Safety Regulations (FMCSR), which sets driver performance criteria. Those performance criteria can be met "by reason of experience, training, or both." That phrase could be changed to language such as: "by reason of training conducted in a program that meets the BMCS Minimum Standards for Training Tractor-Trailer Drivers." It would then be the responsibility of motor carriers to hire only drivers with certificates showing they successfully completed an approved course of driving instruction.

^{4/} Safety Study--"Training, Licensing, and Qualification Standards for Drivers of Heavy Trucks" (NTSB/SS-86/02).

Only schools accredited as having met the BMCS Standards would have the authority to issue training certificates recognized under the FMCSR. An expanded and improved accreditation system, sanctioned by FHWA, would therefore be necessary. The Professional Truck Driver Institute could be the accrediting body, and the Board therefore has recommended that the Institute develop a training school accreditation system.

The BMCS Proposed Minimum Standards also could be used in State licensing of training schools. If all States were to conduct licensing programs based on a uniform, proven effective, rigorously enforced set of standards, many inadequate training courses would be eliminated.

Such applications of the Standards can only be undertaken successfully if their authority is unassailable. Establishing such authority requires validation, i.e., comparing the on-the-job safety record of a group of drivers who were trained according to the Standards with another group of drivers who were not.

The FHWA has indicated its intention to proceed with such a validation study of the Standards, and also a cost/benefit analysis. A contractor has already developed proposed methodologies for this evaluation. Since BMCS staff estimate the evaluation could take as long as 5 years, the Safety Board believes it is in the public interest for this project to begin as soon as possible.

The Motor Carrier Safety Act of 1984 (P.L. 98-554) includes several provisions for "improved, more uniform commercial motor vehicle safety measures and strengthened enforcement." One of these provisions calls for the Department of Transportation to review and reissue the FMCSR, a project due for completion this year. However, even after that congressionally mandated review, further changes in the FMCSR are possible. The Safety Board has examined Part 391, governing driver qualifications, and has suggested ways to revise the rules to correct loopholes and inconsistencies that reduce the rules' effectiveness.

Commercial drivers who cross State lines while working exclusively within a single city or "commercial zone" are exempt from Part 391. This exemption applies even if the truck is as large and unwieldy as any operated between cities. The Safety Board believes that truck driver qualifications should always be commensurate with the demands of the job. There is no evidence that those demands are less driving within a city than in intercity operation. In fact, just the opposite often may be true. The Safety Board therefore urges an end to this exemption.

Motor carriers are required under the FMCSR to administer road tests to new drivers to determine their fitness to handle the equipment they are to be assigned. An owner-operator, a driver who owns his or her own truck, "must be given the [road] test by a person other than himself." While that person must be "competent to evaluate" the driver's skills, there are no safeguards to ensure the test administrator's objectivity. To provide such safeguards, the Safety Board believes the FMCSR should designate groups or individuals with the authority to administer the required road test. These might be Federal or State officials, or possibly insurance companies.

Motor carriers also are required under the FMCSR to administer written examinations to new drivers. The examination, however, is described as "an instructional tool only." It consists of 66 questions, which are printed, along with the answers, in the FMCSR. While taking the examination, the driver is free to refer to the Federal regulations, including the answer list, as well as any other materials. No time limit may

be imposed. If, despite these provisions, the driver scores poorly, these results may not affect his or her qualifications, and employment may not be denied on the basis of a low score. The person administering the examination must point out any missed questions to the examinee, and the motor carrier is permitted, though not required, to provide further instruction based on the examination results.

Some of the questions in the current list deal with the procedural aspects of the FMCSR, rather than the portions of the FMCSR relating directly to the safe operation of a commercial vehicle. One question, for example, concern the requirements for filling out an employment application. Some of the questions concern issues with which many drivers are not involved, such as the question that asks about the conditions under which a person with epilepsy is permitted to drive.

It is the position of the Safety Board that Part 391 should continue to include a requirement for written examination of new drivers. The Board believes instruction is a worthwhile aspect of the examination, and provision should be made to preserve that function, but that should not be the only reason for administering the examination. The primary function must be to screen new employees and to help prevent those with insufficient knowledge of safe driving procedures from being assigned to drive heavy trucks. With that aim, the FMCSR should specify appropriate questions, test administration procedures, and minimum passing score.

There is currently no provision for owner-operators to take the written examination. The Safety Board believes this should be changed, particularly if a pass/fail requirement is imposed. As with the road test, the FMCSR should designate an objective source to administer the written examination to drivers who own their own trucks.

The FMCSR requires a motor carrier to review the driving record of each of its drivers at least once a year. Drivers are supposed to submit a list of their traffic violations to the motor carrier. The Safety Board has observed that a self-reporting system is unlikely to produce accurate results. The Board's study also points out inconsistencies and ambiguities in the stated purpose and procedures of the annual review.

Owner-operators are required to conduct the annual review on themselves. Instead, as with the written and road tests, the Safety Board believes an objective source should be designated to administer this review to drivers who own their own vehicles.

The FMCSR lacks a provision prohibiting a commercial driver from falsifying or omitting medical information in connection with the physical examination required under the Regulations. The Safety Board called for such a provision in its report on a collision in 1983 between a dump truck and a schoolbus near Willow Creek, California. ^{5/} Two persons died and 30 were injured in that accident, in which the truck veered left across the centerline and struck the bus head-on. Subsequent investigation revealed that the truck driver had several medical problems that could cause dizziness, loss of consciousness, and loss of vision. The driver failed to disclose this information to his employer and in several employment-related physical examinations. The Safety Board continues to advocate a provision against falsifying or omitting medical information in the physical examination of truck drivers.

^{5/} Highway Accident Report--"Collision of Humboldt County Dump Truck and Klamath-Trinity Unified District Schoolbus, State Route 96 near Willow Creek, California, February 24, 1983" (NTSB/HAR-83/05).

A regularly employed driver is defined in the FMCSR as "a driver who in any period of 7 consecutive days is employed or used as a driver solely by a single motor carrier." Drivers who do not fit this description, and who drive a motor vehicle for a single trip or on an intermittent, casual, or occasional basis," are exempt from several of the qualification regulations. For example, before assigning such a driver to a truck, a motor carrier does not have to obtain that person's employment and traffic violation history, or check with previous employers and State authorities.

The Safety Board has found no evidence in its accident investigations to show that occasional drivers have less potential for unsafe performance than regularly employed ones. In fact, without frequent experience to maintain their truck driving skills, some occasional drivers may even represent a greater hazard. Consequently, the Board believes that occasional drivers should not be subject to lesser scrutiny, and the above exemption should therefore be eliminated.

Therefore, the National Transportation Safety Board recommends that the Federal Highway Administration:

Expedite development of a battery of knowledge test questions and performance test procedures, based on the Model Curriculum of the Bureau of Motor Carrier Safety Proposed Minimum Standards for Training Tractor-Trailer Drivers, and begin as soon as possible the validation study and cost/benefit analysis of the Proposed Standards and Model Curriculum. (Class II, Priority Action) (H-86-27)

Undertake a program urging all States to impose licensing requirements on the truck driver training schools in their jurisdictions, and, once the Bureau of Motor Carrier Safety Proposed Minimum Standards for Training Tractor-Trailer Drivers have been validated, urge all States to adopt these standards in evaluating truck driver training schools when they apply for State licensure. (Class II, Priority Action) (H-86-28)

Develop a program for evaluating truck driver training schools, using the Bureau of Motor Carrier Safety Proposed Minimum Standards, once they have been validated. If the Professional Truck Driver Institute of the Trucking Industry Alliance, or another body, is designated to perform this evaluation function, provide advice and support to that organization. (Class II, Priority Action) (H-86-29)

Eliminate the exemption from Part 391 of the Federal Motor Carrier Safety Regulations granted to commercial drivers who work exclusively within a single city or commercial zone. (Class II, Priority Action) (H-86-30)

Clarify the purpose and procedures of the annual review of employee drivers' traffic records, which Section 391.25 of the Federal Motor Carrier Safety Regulations requires of motor carriers. (Class II, Priority Action) (H-86-31)

Stipulate in the Federal Motor Carrier Safety Regulations that no driver may screen his or her own driving record in the annual review required by the regulations. Designate an impartial source to which commercial truck drivers who work independently must turn for the

annual review. This same source should administer the required road test to independent operators. Require that independent operators using this source take the knowledge examination required of other drivers. (Class II, Priority Action) (H-86-32)

Restructure the written examination required of commercial drivers by the Federal Motor Carrier Safety Regulations. A battery of test questions should be developed dealing with issues of safe operating practice frequently encountered by most drivers. Drivers should be prohibited from consulting answer sheets or other reference materials while taking the examination, and a minimum passing score should be established. (Class II, Priority Action) (H-86-33)

Eliminate the exemptions from portions of the Federal Motor Carrier Safety Regulations granted to drivers not regularly employed as drivers who operate commercial vehicles on an intermittent, casual, or occasional basis. (Class II, Priority Action) (H-86-34)

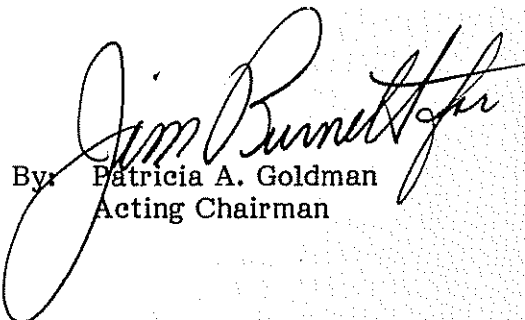
The Safety Board also reiterates Safety Recommendation H-83-21, which was made to the Bureau of Motor Carrier Safety on May 3, 1983:

Upon completion of the testing of the Tractor-Trailer Driver Training Standards, the Sample Model Curriculum, and final examination criteria, amend Part 391, "Qualifications of Drivers," of the Federal Motor Carrier Safety Regulations to include criteria and standards for the training of tractor-trailer drivers.

and Safety Recommendation H-83-68, which was made to the Federal Highway Administration on December 5, 1983:

Revise Federal Motor Carrier Safety Regulation 49 CFR 391.43 to incorporate a provision, similar to that specified in 14 CFR 67.20(a) for airmen medical certification, which will prohibit the falsification or omission of medical information in connection with a medical certification physical examination.

GOLDMAN, Acting Chairman, and BURNETT, LAUBER, and NALL, Members, concurred in these recommendations.

By 
Patricia A. Goldman
Acting Chairman