



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: April 27, 2005

In reply refer to: H-05-06 through -08

Ms. Linda Lewis-Pickett
President and Chief Executive Officer
American Association of Motor Vehicle Administrators
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The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge your organization to take action on the safety recommendations in this letter. The Safety Board is vitally interested in these recommendations because they are designed to prevent accidents and save lives.

These recommendations address the adequacy of State and Federal oversight of motor carriers, the identification and appropriate use of speed-restricted tires on motorcoaches, and the criteria for State and Federal annual inspections of motorcoach passenger seating anchorage points. The recommendations are derived from the Safety Board's investigation of the motorcoach run-off-the-road accident that took place in Tallulah, Louisiana, on October 13, 2003,¹ and are consistent with the evidence we found and the analysis we performed. As a result of this investigation, the Safety Board has issued 11 safety recommendations, 3 of which are addressed to the American Association of Motor Vehicle Administrators (AAMVA). Information supporting the recommendations is discussed below. The Safety Board would appreciate a response from you within 90 days addressing the actions you have taken or intend to take to implement our recommendations.

At 10:50 a.m. on October 13, 2003, a 1992 Neoplan USA Corporation (Neoplan) 49-passenger motorcoach, owned and operated by the First Baptist Church of Eldorado, Texas, was traveling eastbound on Interstate 20 near Tallulah, Louisiana. The motorcoach, carrying 14 passengers, was en route from Shreveport, Louisiana, to Tuscaloosa, Alabama, as part of a multicity sightseeing tour that had originated in Eldorado. As the motorcoach approached milepost 168, it drifted rightward from the travel lanes and onto the shoulder, where it struck the rear of a 1988 Peterbilt tractor semitrailer operated by Alpha Trucking, Inc., which was stopped on the shoulder at milepost 167.9. As both vehicles moved forward, the motorcoach rotated clockwise slightly and the semitrailer rotated counter-clockwise slightly; the vehicles remained

¹ For additional information read National Transportation Safety Board, *Motorcoach Run-Off-The-Road Accident, Tallulah, Louisiana, October 13, 2003*, Highway Accident Report NTSB/HAR-05/01 (Washington, DC: 2005).

together. They traveled approximately 62 feet and came to rest, still oriented to the east, adjacent to the right side of the interstate on the outside shoulder. Eight motorcoach passengers sustained fatal injuries, the motorcoach driver and six passengers received serious injuries, and the Peterbilt driver was not injured.

The National Transportation Safety Board determined that the probable cause of the accident was the motorcoach driver's operation of the motorcoach in a reduced state of alertness due to fatigue as a result of his chronic insomnia and poor quality sleep. Further contributing to the accident was the failure of Alpha Trucking, Inc., to perform vehicle maintenance and to provide safety management controls, which resulted in the accident tractor semitrailer being parked on the interstate shoulder. Contributing to the severity of the injuries was the failure of the motorcoach seat anchorages.

After the accident, when the Federal Motor Carrier Safety Administration (FMCSA) conducted a compliance review of the First Baptist Church of Eldorado, it issued the church a U.S. Department of Transportation (USDOT) number and a safety rating of "Unsatisfactory" because of the church's failure to adhere to the Federal Motor Carrier Safety Regulations (FMCSRs). According to the church, it had been unaware before the accident that its motorcoach was defined by the Federal regulations as a commercial vehicle. Furthermore, the church said it had been unaware of the FMCSA, of the need to obtain a USDOT number for its motorcoach, and of the FMCSRs that applied to its motorcoach and drivers. When the church applied for title, registration, and license plates from the State of Texas, the State classified the vehicle as a "private bus," and the church thought its motorcoach was not a commercial vehicle. Information about the Federal definition of a commercial vehicle, which would have indicated that the church's accident motorcoach was a commercial vehicle, did not appear on the Texas title or registration application forms.

All vehicle owners must apply for a State title, registration, and license plates if they wish to operate their vehicle on public roads. Given that all vehicle owners in every State are subject to this rule, the application process provides an opportunity to educate all vehicle owners on whether their vehicle is a commercial vehicle by Federal definition and to give them guidance on how to contact the appropriate officials. Including specific guidance concerning the Federal definition of a commercial vehicle on State applications would ensure that all vehicle owners have access to this important information. It could help prevent the type of misunderstanding alleged to have occurred in this accident, in which the church was unaware of its standing as a commercial vehicle operator and of the need to adhere to Federal safety regulations affecting its vehicle and drivers.

Because many State applications do not provide any information on the FMCSA and the Federal rules for commercial vehicles, some motorcoach and bus owners may not be aware of the need to contact the FMCSA for guidance. As a result, not only are these owners not registered with the FMCSA, they may also be unwittingly operating unsafely as commercial motor carriers on the Nation's highways and not abiding by the Federal safety regulations that pertain to commercial vehicles and drivers. The Safety Board concluded that the Texas vehicle title and registration applications, which classified the accident motorcoach as a private bus, did not inform the vehicle's owner of its Texas or Federal classification as a commercial vehicle and the requirement to meet Federal safety regulations for this classification. The AAMVA provides

guidance concerning vehicle titling (among other issues) to its membership, and all State motor vehicle administrators are AAMVA members. The Safety Board believes the AAMVA should develop, and disseminate to the States, model language for title and registration applications to alert applicants to the Federal definition of a commercial vehicle and to the need to contact the FMCSA for guidance on obtaining a USDOT number and on determining the applicability of Federal safety regulations to their vehicle.

The postaccident mechanical inspection of the motorcoach by Safety Board investigators did not reveal any mechanical conditions that would have contributed to the accident. However, during the vehicle inspection, investigators discovered that the motorcoach had been equipped with speed-limited tires. The restricted speed information was clearly visible on the tires' outer sidewalls. The tires were designed for use at speeds not to exceed 55 mph; the motorcoach was being operated on the interstate at speeds exceeding 55 mph at the time of the accident. According to the manufacturer, the tires' speed restriction was dictated by their construction. They were designed to provide high-load capacity and durability and are normally (and appropriately) used on inner city transit-bus-type vehicles, which typically do not exceed speeds of 55 mph. The use of speed-limited tires on vehicles that routinely operate at higher speeds is not an industry-recommended practice because of the propensity of this type of tire to generate excessive heat, which is the leading cause of abrupt tire failures.

The First Baptist Church of Eldorado had the tires installed on the accident motorcoach in February 2002 and, on June 26, 2003, the motorcoach passed a State of Texas inspection. The inspection of motor vehicles (including motorcoaches) in Texas is conducted in approved, privately owned and operated garages and repair facilities, which are designated by the Texas Department of Public Safety. A review of the State inspection manual revealed that the inspection procedures do not include instructions concerning the identification and proper use of speed-limited tires. The Safety Board also reviewed additional State and Federal regulatory and vehicle inspection guidelines.² Information concerning the identification of, or the procedures for ensuring the proper use of, speed-limited tires does not appear in any of these State and Federal inspection guidelines or regulations for private or commercial vehicles.

If a speed-restricted tire is used in service at speeds above 55 mph for extended periods, a catastrophic failure can result. Consequently, when passenger-carrying vehicles are equipped with such tires, the vehicles must not be used for highway travel. Without specific inspection criteria addressing this issue, these tires can escape inspectors' scrutiny and be permitted to remain on passenger vehicles intended for prolonged use at speeds above 55 mph, which would cause an unsafe situation. The Safety Board concluded that because the commercial vehicle inspection criteria used by the State of Texas, the CVSA, the FMCSA, and the AAMVA do not address the identification and appropriate use of speed-limited tires, they overlook an important vehicle safety factor and can result in commercial vehicles intended for highway use being operated with tires not suited for highway speeds. The Safety Board believes that the AAMVA should revise its *Vehicle Inspection Handbook: Trucks, Buses, and Trailers* to provide guidance

² The guidance documents reviewed included 49 *Code of Federal Regulations* Part 393; the FMCSRs appendix G to subchapter B, *Minimum Periodic Inspection Standards*; the Commercial Vehicle Safety Alliance (CVSA) *North American Standard Out-of-Service Criteria*; and the AAMVA *Vehicle Inspection Handbook: Trucks, Buses, and Trailers*.

on inspecting and examining tires to ensure that they have the proper speed rating for a vehicle's intended use.

During the Tallulah crash sequence, many passenger seats did not remain secure in their original positions in the passenger compartment, even in the space outside the intrusion area. Intrusion was limited to the first several rows on the right (passenger) side; nevertheless, the passengers seated outside the intrusion area sustained serious and fatal injuries. On the passenger side, all the passengers in the first seven rows sustained fatal injuries. On the driver side, the vehicle sustained no intrusion damage to the passenger compartment; however, two passengers seated on this side sustained fatal injuries, and five sustained serious injuries.

Emergency personnel said that when they arrived on scene, they found the seats "piled up" near the front of the coach and passengers trapped among and underneath the seats. The failure of the seat anchorages, which occurred when the unrestrained passengers struck the seats during the accident sequence, caused entire seat frames to move forward. As the seats moved forward, passengers were pinned between them, which increased the severity of their injuries.

One reason the seats did not remain in their original positions during the accident was that several of the T-bolts that fastened the seats to the stainless-steel floor track had been incorrectly installed. The T-bolts were designed so that they could only be inserted into the track when the bolt head was positioned parallel to the track. Turning the bolts slightly less than 90°, so that the head of the bolt was nearly perpendicular in the track, locked them into place and prevented the bolt and seat pedestal from "lifting" out. Of the 32 T-bolts in the 16 seat frames found outside the motorcoach, 7 T-bolts had not been properly secured to the track in the perpendicular direction.

Shortly before the accident, the motorcoach had passed a State inspection and received a valid inspection certificate. In reviewing the State of Texas inspection procedures; the FMCSRs appendix G to subchapter B, *Minimum Periodic Inspection Standards*; and the AAMVA *Vehicle Inspection Handbook: Trucks, Buses, and Trailers*, the Safety Board found that they contain no procedures or criteria for the inspection of seat anchorage securement in motorcoaches. The Safety Board concluded that improperly secured motorcoach passenger seats are not likely to be identified during commercial vehicle inspections because no criteria or procedures are available for the inspection of motorcoach passenger seating anchorage systems. The Safety Board believes that the AAMVA should develop a method for inspecting motorcoach passenger seat mounting anchorages and revise its *Vehicle Inspection Handbook: Trucks, Buses, and Trailers* to include the inspection procedures.

Therefore, the National Transportation Safety Board issues the following safety recommendations to the American Association of Motor Vehicle Administrators:

Develop, and disseminate to the States, model language for title and registration applications to alert applicants to the Federal definition of a commercial vehicle and to the need to contact the Federal Motor Carrier Safety Administration for guidance on obtaining a U.S. Department of Transportation number and on determining the applicability of Federal safety regulations to their vehicle.

(H-05-06)

Revise your *Vehicle Inspection Handbook: Trucks, Buses, and Trailers* to provide guidance on inspecting and examining tires to ensure that they have the proper speed rating for a vehicle's intended use. (H-05-07)

Develop a method for inspecting motorcoach passenger seat mounting anchorages and revise your *Vehicle Inspection Handbook: Trucks, Buses, and Trailers* to include the inspection procedures. (H-05-08)

The Safety Board also issued safety recommendations to the National Highway Traffic Safety Administration, the Federal Motor Carrier Safety Administration, the Commercial Vehicle Safety Alliance, and Neoplan USA Corporation.

In your response to this letter, please refer to Safety Recommendations H-05-06 through -08. If you need additional information, you may call (202) 314-6177.

Acting Chairman ROSENKER and Members ENGLEMAN CONNERS, HEALING, and HERSMAN concurred in these recommendations.

By: Mark V. Rosenker
Acting Chairman