H-572E

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C. 20594

Safety Recommendation

Date:

July 26, 1993

In Reply Refer To:

H-93-33

Mr. George Snyder Director American Bus Association 1015 15th Street, N.W. Suite 250 Washington, D.C. 20005

On Sunday, July 26, 1992, about 11:10 a.m., the driver of a charter bus traveling from Brooklyn, New York, to Vernon, New Jersey, lost control of the bus as it descended a steep hill. The bus struck a car, overturned on its right side, slid and spun on its side, uprighted, and struck another car before coming to rest. A fire ensued, burning the bus and the second car. Twelve passengers were ejected from the bus during the collision; six of them died. The driver and the other 37 bus passengers sustained minor to serious injuries. The two car drivers sustained minor injuries, and the car passenger was uninjured.

The National Transportation Safety Board determines that the probable cause of the accident was the busdriver/owner's² failure to maintain the bus adequately and his deliberate disregard in choosing to operate the bus with known brake deficiencies. Contributing to the accident was the failure of the New York Department of Transportation (NYDOT) to inspect the bus and ensure that its deficiencies were corrected. Also contributing to the accident was the inadequacy of the Federal Highway Administration's (FHWA's) system for identifying motor carriers.

¹For more information, see Highway Accident Report-Charter Bus Loss of Control, Overturn, and Fire, Vernon, New Jersey, July 26, 1992 (NTSB/HAR-93/02).

²The busdriver was the owner of the company, Golden Sons, Inc., to which the bus belonged.

The postaccident examination revealed numerous deficiencies throughout the brake system. The drive axle brakes were the only functional brakes on the bus, and even they were out of adjustment. The investigators calculated that the cold braking efficiency³ of the bus was about 38 percent.

During the accident, however, the application of the brakes generated heat. The heat caused the brake drums to expand, increasing the distance that the brake linings needed to move to contact the drum and requiring a longer pushrod stroke to remain in contact. The drive axle brakes were the only functional brakes and because they had insufficient reserve pushrod stroke available, when the brakes became heated, braking capacity diminished.

The extent of the deficiencies indicates very little maintenance performed on the vehicle before the accident. The brakes were missing hardware, loose, out of adjustment, and worn. The air chambers were corroded and leaking, as were the air and grease seals, so the components around the brake assemblies were contaminated. The reverse idler and the reverse gear were excessively worn. Although the clutch assembly and the transmission were in good condition, the clutch linkage was so loose that it would have been difficult to fully disengage the clutch when changing gears. The air reservoir tanks contained water, and the structural integrity of the bus had been degraded by severe corrosion. The deficiencies found were indicative of long-term neglect and did not occur during the accident. Based on all of the deficiencies discovered in the postaccident examination, the Safety Board concludes that the accident bus had not been adequately maintained and was not fit for service.

The driver took the bus for repairs the week before the accident and was told that it needed new brakes. When he retrieved the bus, the mechanic told him that the brakes had not been repaired, that the bus was in "bad shape" and needed the repairs, and that he should "take it easy." The postaccident examination confirmed the mechanic's assessment of the condition of the bus. Although the driver apparently tested the brakes before the accident trip by braking at a low speed on a level surface, such a test would not have revealed their true condition.

Although the driver knew about the deficient condition of the brakes and the bus, he chose to operate the bus anyway. Since 1989, he had shown deliberate disregard for safety requirements. He had failed to file affidavits of compliance with the New York Department of Motor Vehicles (NYDMV), to obtain operating authority from the NYDOT, to file an MCS-150 (Motor Carrier Identification Report) with the FHWA, to have the NYDOT inspect his buses, and to pay a fine. Also, although he had owned the accident bus for 3 months, he had not repaired it despite its numerous deficiencies. The Safety Board concludes that the driver chose to operate the bus without first repairing the brakes and other known major deficiencies.

³The efficiency of brakes that have not been affected by the frictional heat generated during brake applications.

Therefore the Safety Board recommends that the American Bus Association:

Advise members of the circumstances of this accident and urge them to report any suspected safety violations or uninspected buses to the appropriate authorities. (Class II, Priority Action) (H-93-33)

Also, the Safety Board issued Safety Recommendations H-93-27 and -28 to the Federal Highway Administration, H-93-29 to the New York Department of Motor Vehicles, H-93-30 to the New York Department of Transportation, H-93-31 to the American Association of Motor Vehicle Administrators, and H-93-33 to the United Bus Owners of America.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation H-93-33 in your reply. If you need additional information, you may call (202) 382-6850.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HART, and HAMMERSCHMIDT concurred in this recommendation.

> Carl W. Vogt By:

Chairman

Mullegt