Log R-589



National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Date: April 5, 1989

In reply refer to: R-89-24 through -28

The Tourist Railway Association, Inc. (TRAIN) c/o Joseph E. Minnich P.O. Box 24841 Denver, Colorado 80224-0841 The Association of Railroad Museums (ARM) c/o Brian Norden P.O. Box 3311 City of Industry, California 91744

On October 18, 1987, two trolley cars operated by the National Capital Trolley Museum (a member of ARM) near Wheaton, Maryland, collided head-on on a single-loop track. The National Transportation Safety Board's investigation of this accident disclosed that one car had a steel frame and wooden superstructure whereas the other was all steel with safety glass. The all-steel car overrode and partially telescoped the wooden car, shattering window glass in the wooden car. Fourteen passengers were treated for injuries and released from the hospital; the operator of one of the trolley cars was admitted to the hospital. Fortunately, no fatalities, fire, or severe derailment resulted from the accident.

Movements of the trolley cars were controlled by a manager who directed the trolley operators to proceed to the next passing track or far-end loop and await the next trolley before returning. Directions were given from a phone at the museum station through wayside telephones located at each end loop and middle passing track of the "dog bone"-configured track.

Although an apparent understanding of operating routine existed between trolley operators and the manager prior to the accident, no written guidelines, book of rules, or standard operating procedures had been finalized to ensure a common understanding and compliance. The Safety Board believes this lack of formal guidance contributed to the communication failure between operator and manager, and to the consequent collision. The lack of safety guidelines and operating procedures also diminished an opportunity for museum personnel to systematically evaluate the operating routine and to incorporate safety checks and contingency plans.

¹For more detailed information, see NTSB accident report NYC-88-FR-001

The investigation disclosed several other inadequacies in the museum operation. Although fire extinguishers were aboard each trolley car, neither had a first-aid kit. There was no two-way radio communication between cars nor between the manager and cars. Notification of the accident and a request for ambulance service came only after someone walked to a nearby wayside phone and contacted the manager.

The National Capital Trolley Museum is representative of a large number of similar operating museums. The Safety Board recognizes that such organizations vary greatly in number of members, miles of track, variety and number of vehicles, and size of budgets. The Safety Board also understands that many of these organizations do not receive Federal, State, or local funding, nor are they generally subject to any outside oversight by regulatory or other agencies.

The tourist railway and operating museums have operated for many years with an excellent safety record. Because the industry is growing, however, and is carrying a significant number of passengers, the Safety Board believes that the organizations should take the initiative to formalize their operations and equipment in the interest of public safety.

The general public that rides vintage equipment of the operating museums and tourist railways either take for granted that the industry has ensured their safety or are not aware of inadequacies such as those discovered during the investigation of the accident at the National Capital Trolley Museum. General safety guidelines, operating procedures, and equipment requirements should be established that will protect the public while preserving the historical and educational value of these antique rail operations.

Therefore, the National Transportation Safety Board recommends that the Association of Railroad Museums and the Tourist Railway Association, Inc.:

Establish general safety guidelines and standard operating procedures for antique rail operations. (Class Π , Priority Action) (R-89-24)

Encourage each member organization to establish specific safety guidelines and standard operating procedures for their respective operations. (Class II, Priority Action) (R-89-25)

Encourage each member organization to equip each rail vehicle used for public rides and excursions with a first-aid kit and operable fire extinguisher. (Class II, Priority Action) (R-89-26)

Encourage each member organization to equip rail vehicles and trains used for public rides and excursions with radio capability for summoning emergency services through an operator, dispatcher, or controller, or by direct link with local emergency services. (Class II, Priority Action) (R-89-27)

Encourage each member organization to prepare and maintain a current emergency response plan in cooperation with the local emergency response services. (Class II, Priority Action) (R-89-28)

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 recommendations in this letter. Please refer to Safety Recommendations R-89-24 through -28 in your reply.

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

James L. Kolstad Acting Chairman

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