109# R-586A



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: December 9, 1987

In reply refer to: R-87-30 and -31

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On May 18, 1986, 14 of the 23 passenger cars of a Norfolk and Western Railway Company (N&W) passenger excursion train powered by a steam locomotive derailed near Suffolk, Virginia. Of the approximately 1,000 train passengers, all of whom were N&W employees and their relatives and guests, 177 were injured; 19 of the injured were hospitalized. The estimated cost of damage was \$231,530. 1/

The Safety Board is aware that much of the modification and restoration of historic equipment is performed by members of railroad historical societies and associations who take pride in restoring the equipment to its original condition. However, when historic equipment is used on the general railroad system, the public has a right to expect that the historic equipment will not jeopardize the public's safety. It was no coincidence that, of the 14 cars to derail, the cars that jackknifed and/or overturned were not equipped with tightlock couplers. The railroad industry has long recognized that tightlock couplers prevent vertical disengagement of couplers during derailments, thus resisting cars overturning and telescoping in collisions. Tightlock couplers have been a mandatory standard of the Association of American Railroads on railroad passenger equipment built since 1956. The N&W management had the responsibility and authority to accept or reject equipment or to impose restrictions as necessary. The Safety Board believes that the N&W management should not have permitted passenger equipment without tightlock couplers to be used in a train.

The Federal Railroad Administration exempts historic or older equipment used for excursions on the general railroad system from complying with Federal requirements for safety glazing standards and emergency exits. However, in this accident, windows in the derailed passenger cars were broken either as a result of the derailment or by evacuation of passengers. More injuries, possibly even fatal injuries, could have resulted had car NW 1069, which had no glazing in the window openings to keep occupants from being ejected

^{1/} For more detailed information, read Railroad Accident Report—"Derailment of Steam Excursion Train Norfolk and Western Railway Company Train Extra 611 West, Suffolk, Virginia, May 18, 1986" (NTSB/RAR-87/05).

from the car, overturned and slid, like SOU 1087 and SOU 4061. The Safety Board believes that with the increasing number of excursion trips on the general railroad system, no passenger car should be exempt from compliance with the recognized safety standards that are intended to provide the safest equipment for the public.

In evaluating the interiors of the jackknifed and/or overturned cars, it is apparent that the conversions and modifications were done with little consideration for crashworthiness. Service counters in car SOU 4061 were inadequately fastened to the floor and separated from the floor when the car overturned, trapping one passenger. The loose, free-standing appliances, furniture, and other objects became missiles during the derailment and may well have caused some of the more serious injuries. Protruding objects, such as light switches, junction boxes, bare bolt ends, and nails in the walls should be relocated or eliminated.

Therefore, the National Transportation Safety Board recommends that the National Railroad Historical Society; the American Association of Private Railroad Car Owners, Inc.; the American Short Line Railroad Association; and the Association of American Railroads:

Inform its membership of the facts and circumstances of the train accident at Suffolk, Virginia, on May 18, 1986, and recommend that its members require all cars in the consist of a passenger-carrying train on the general railroad system to be equipped with interlocking (tightlock) couplers and certified window glazing. (Class II, Priority Action) (R-87-30)

Recommend to its membership that the interior fixtures and appliances of any passenger-carrying car be secure and that the interiors of cars do not have the injury-producing features identified in the accident involving train Extra 611 West at Suffolk, Virginia, on May 18, 1986. (Class II, Priority Action) (R-87-31)

The Safety Board also issued Safety Recommendations R-87-24 through -29 to the Norfolk and Western Railway Company; R-87-32 to the American Short Line Railroad Association and the Association of American Railroads; and R-87-33 through -37 to the Federal Railroad Administration.

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 actions taken as a result of its safety recommendations and 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-87-30 and -31 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and NALL and KOLSTAD, Members, concurred in these recommendations. LAUBER, Member, did not participate.

By: Jim Burnett
Chairman