

# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: February 11, 1981

Forwarded to:

Honorable Gordon Vickery  
Administrator  
United States Fire Administration  
2400 M Street, N.W.  
Washington, D.C. 20472

SAFETY RECOMMENDATION(S)

R-81-21 and -22

On July 29, 1980, the National Transportation Safety Board concluded a 2-day national hearing on rail rapid transit safety. The hearing was prompted by an increasing concern over safety oversight responsibility for rail rapid transit systems, particularly fire safety issues and emergency evacuation of rail rapid transit passengers from underground or underwater tunnel locations. Twenty-five witnesses from transit industry management and labor, local fire departments, national fire safety organizations, and State and Federal agencies, including the United States Fire Administration (USFA), testified at the hearing. The Safety Board found USFA's participation in the public hearing of invaluable assistance in our examination of rail rapid transit safety. 1/

The safety problems identified as a result of this hearing and other Safety Board investigatory work indicate that the serious consideration and involvement of the USFA is necessary to address training concerns. During peak hours, a single rail rapid transit train can carry a "crushload" of 1,500 to 2,000 passengers. Under such conditions, the loss of life in an accident, fire, or other emergency could well be catastrophic. That such an accident with enormous risk to passengers, fire and emergency service personnel, and transit employees can occur has been amply demonstrated by the train fire in the Transbay Tube of the Bay Area Rapid Transit District on January 17, 1979; 2/ the train fire in a tunnel and station of the Southeastern Pennsylvania Transportation Authority on September 6, 1979; and the three separate train fires in the tunnels of the New York City Transit Authority on June 25, 1980, and December 10 and 11, 1980.

The Safety Board's evaluation of rail rapid transit safety indicates the need for special training of transit employees so that their duties and responsibilities during an accident, fire, or other emergency are clearly defined. The Urban Mass Transportation Administration (UMTA) is the Federal agency responsible for insuring that effective

1/ For more detailed information, read "Safety Effectiveness Evaluation of Rail Rapid Transit Safety" (NTSB-SEE-81-1).

2/ For more detailed information, read "Railroad Accident Report--Bay Area Rapid Transit District Fire on Train No. 117 and Evacuation of Passengers While in the Transbay Tube, San Francisco, California, January 17, 1979" (NTSB-RAR-79-5).

training programs are conducted at all rail rapid transit systems. Testimony at the national hearing revealed that rail rapid transit union management and fire service officials were very concerned that training programs for emergency response were inadequate. Therefore, the Safety Board recommended that UMTA develop Federal guidelines for training programs for rail rapid transit employees, to include actual performance, under simulated conditions, of the duties they may be required to perform in the event of a fire or other emergency. We believe that the USFA can provide valuable assistance to UMTA in the development of such guidelines.

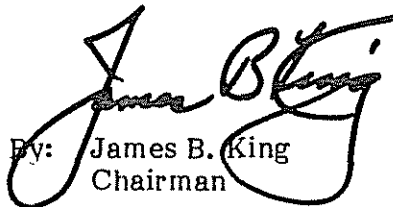
Likewise, testimony at the hearing indicated that fire service personnel often were not adequately prepared to react to the dangerous and unfamiliar conditions encountered in a fire emergency in a rail rapid transit tunnel. The Safety Board believes this is a result of the difficulty in scheduling simulated fire training on rail rapid transit systems, the lack of a systematic process for applying fire safety lessons learned from an accident or incident on one rail rapid transit system to other transit systems, and the lack of coordination between rail rapid transit systems and local fire officials. The Safety Board believes that the USFA, with the cooperation of UMTA, should develop a training curriculum for fire service officials with the responsibility for administration of fire protection on rail rapid transit systems.

Therefore, the National Transportation Safety Board recommends that the United States Fire Administration:

Offer to assist and cooperate with the Urban Mass Transportation Administration in its development of rail rapid transit system training program guidelines which address fire safety concerns, such as tunnel rescue in a smoke and/or fire environment. (Class II, Priority Action) (R-81-21)

In consultation with the Urban Mass Transportation Administration, develop a national training curriculum for fire service personnel involved in the administration of fire protection on rail rapid transit systems. (Class II, Priority Action) (R-81-22)

KING, Chairman, DRIVER, Vice Chairman, McADAMS and BURSLEY, Members, concurred in these recommendations. GOLDMAN, Member, dissented in these recommendations.

  
By: James B. King  
Chairman