

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: July 30, 1976

Forwarded to:

Honorable Asaph H. Hall
Administrator
Federal Railroad Administration
400 Seventh Street, S.W.
Washington, D. C. 20590

SAFETY RECOMMENDATION(S)

R-76-24 through R-76-32

On October 17, 1975, about 6:37 p.m., a northbound Penn Central Transportation Company (Penn Central) passenger train, No. 944, struck the rear of another Penn Central passenger train, No. 132, which had made an unscheduled stop near Wilmington, Delaware, because of an equipment malfunction. Train No. 939, a southbound Penn Central passenger train that was approaching on an adjacent track, struck the derailed equipment from No. 944. Twenty-five persons were injured in the initial collision. Property damage exceeded \$800,000.

The accident illustrates the following areas in which corrective action is warranted by the Federal Railroad Administration:

(1) Train No. 944 was permitted to enter a block already occupied by a standing passenger train. When passenger trains enter occupied blocks and are operated under the restricted speed rule, rear end collisions may result.

(2) The engineer of No. 944 did not detect the presence of the standing No. 132 in time to stop because its silver color was not conspicuous in the fading light. The Safety Board has pointed out previously the need to improve conspicuity of trains.

(3) Employees of the Penn Central testified that emergency flagging equipment was not always available to them at the passenger train terminals and it was not available on the lead unit of No. 132. Trains should not be dispatched unless they are equipped with flagging equipment.

(4) Rule 99 does not require that following trains be flagged if the trains are operated under automatic block signal rules and/or traffic control system rules. This accident illustrates the hazards of this exception to Rule 99 and demonstrates the need for protection of stopped passenger trains in these territories.

(5) After the accident occurred, the emergency light system and the communications system failed to function.

(6) Employees of the Penn Central testified that they had not been trained in emergency procedures and in the establishment of priorities for the postaccident emergency period. Such training programs would increase the likelihood that effective procedures would be used following an accident. Since the effectiveness of any emergency plan is also dependent upon participation of emergency community services, any training program should include appropriate community participation.

(7) Crewmembers on No. 944 evacuated the cab before the trains collided to escape injury, while a crewmember in the rear of No. 132 remained in the cab throughout the collision. Evacuation procedures are not a required part of training programs of railroad employees, but such training appears to be warranted.

(8) Cab signals are supposed to provide continuously reliable information and apparently, based on this investigation, some do not. This investigation could not establish the frequency of this occurrence; however, it should be established.

(9) Trains 944 and 939 were not equipped with a speed indicator, yet operating rules require adherence to speed restrictions. Speed indicators are needed to insure rule compliance.

Therefore, the National Transportation Safety Board recommends that the Federal Railroad Administration:

Establish regulations on mainlines used by passenger trains that will require trains to stop if the block in front of them is occupied.
(R-76-24) (Class II, Priority Followup)

Establish standards for rear end visibility of trains.
(R-76-25) (Class II, Priority Followup)

Require that trains are equipped with emergency flagging equipment.
(R-76-26) (Class II, Priority Followup)

Establish regulations for the protection by flagging of the rear end of all stopped trains in passenger territory.
(R-76-27) (Class II, Priority Followup)

Require carriers to provide emergency lighting and communication systems on passenger cars and to provide for predeparture inspection to assure their operability. (R-76-28)
(Class II, Priority Followup)

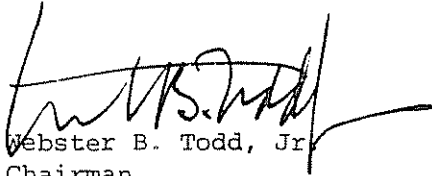
Require carriers to train employees in emergency procedures to be used after an accident, to establish priorities for emergency action, and to conduct accident simulations to test the effectiveness of the program, inviting civic emergency personnel participation. (R-76-29) (Class II, Priority Followup)

Require railroads to include emergency procedures for cab evacuation in its training program for operating employees. (R-76-30) (Class II, Priority Followup)

Observe a statistically adequate sample of trains equipped with cab signals to establish the reliability of this system. Appropriate remedial action should be taken based on these findings. (R-76-31) (Class II, Priority Followup)

Require that trains be equipped with reasonably accurate speed indicators. (R-76-32) (Class II, Priority Followup)

TODD, Chairman, McADAMS, HOGUE, BURGESS, and HALEY, Members, concurred in the above recommendations.


By: Webster B. Todd, Jr.
Chairman