

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: August 7, 1975

Forwarded to:

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

SAFETY RECOMMENDATION(S)
R-75-36 through 38

At about 8:19 a.m., on January 2, 1975, Penn Central commuter train No. 528, operating between White Plains, New York, and Grand Central Station in New York City, passed a "stop-and-proceed" signal and collided with the rear of commuter train 526 at Botanical Garden Station, New York City. Four cars of train 526 were derailed; however, damage to the cars of both trains was minimal. Two hundred and sixty-five passengers and employees were injured. Three of the injured persons were admitted to the hospital and the others were treated and released. There were 34 fractures, 75 whiplash injuries, 51 nose lacerations, and many other facial lacerations. The trains were those of the Metropolitan Transportation Authority, which were being operated by the Penn Central under contract.

Following an investigation of the accident, the National Transportation Safety Board determined that the probable cause of the collision was the failure of the engineer of train 528, while operating the train in violation of the "stop-and-proceed" indication, to perceive the train ahead in time to prevent a collision; and the lack of a backup system to control the train in accordance with the signal indication when the engineer failed to do so. The cause of the large number of injuries in this relatively moderate collision was the poor design of seats and of other interior features.

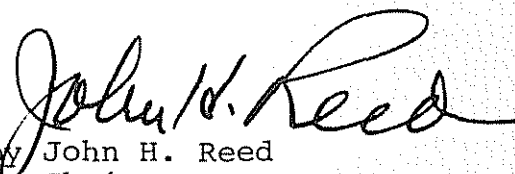
The line on which the accident occurred is provided with an automatic block signal system but is not provided with any form of train control or train stop system. When a block is occupied the signal governing the entrance to that block displays a "stop-and-proceed" aspect. After stopping short of the signal a train may proceed into the occupied block at restricted speed not exceeding 15 mph. Three signals in approach of the signal of the occupied block indicate the restricted situation.

It was disclosed during the investigation of the accident that, even though the Penn Central had requirements for annual physical examinations for engineers, the engineer of train 528 had not been so examined for a period of almost ten years. It is important to have such regulations and it is equally as important to enforce them.

This collision between trains 528 and 526 was not severe when compared to similar collisions. However, a large number of passengers sustained personal injuries. Many of these injuries were caused by deficiencies in the interior design of the cars or of the seats, which, if corrected, would eliminate such injuries in the future.

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

1. Promulgate regulations that will ensure that commuter trains will be controlled as required by the signal system in the event that the engineer fails to do so. (Class II)
2. Promulgate regulations to establish minimum physical standards and require periodic physical examinations of all crewmembers responsible for the movement of trains. (Class II)
3. Promulgate regulations to establish minimum standards for the interior of commuter cars so that adequate crash injury protection and emergency equipment will be provided passengers. (Class II)


by John H. Reed
Chairman

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendation.