

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: March 5, 1980

Forwarded to:

Mr. David L. Gunn
General Manager
Southeastern Pennsylvania Transportation
Authority
PSFS Building, 12 South 12th Street
Philadelphia, Pennsylvania 19107

SAFETY RECOMMENDATION(S)

R-80-8 and -9

At about 3:30 p.m. on January 1, 1980, Southeastern Pennsylvania Transportation Authority (SEPTA) train No. 6, consisting of six self-propelled cars of the Market Street-Frankfort elevated subway line, made a station stop in the subway at 15th and Market Streets. A passenger attempted to board the third car as the double sliding doors were being closed. The passenger was able to get only his right foot into the car before the doors closed on his ankle, and he was unable to extract his foot from the closed doors before the train started. He stuck his hand through the rubber facing strips on the door and attempted to hold on to the outside of the door as the train moved from the station. He apparently was pulled from the car by a projection in the subway a short distance from the station and was killed.

The train conductor was controlling the side doors from an operating compartment in the train which was on the same side as the platform. He operated the door closing button and apparently was moving to an operating compartment on the opposite side of the train when the passenger attempted to board the train. The conductor did not see the passenger.

Each married pair of cars is provided with an operating compartment on opposite sides on each end of the pair. The train is operated by the motorman from the forward compartment, and the doors are controlled by a conductor from one of the other compartments throughout the train.

Each car is provided with three sets of double sliding doors on each side. One set is located in the middle of the car with the others near each end. Each 21-inch-wide door is provided with a 3-inch-wide flexible rubber facing strip. The doors are opened and closed by an air-operated engine, and are locked in the closed position when the activating arm is horizontal. The doors are not provided with a recycling device and they can close and lock on an object that is about 5 inches wide or less by compressing the rubber facing strips.

Each side of the car is provided with a red indicator light at the center door which is illuminated when the doors are opened. A light in the operating compartment is illuminated when the doors are closed and is a signal to the operator that the train may proceed.

This light is actuated when the doors are 1/8 inch from the closed position. The operation of the doors does not affect the propulsion system. Power can be applied and the train started with the doors open or partially open.

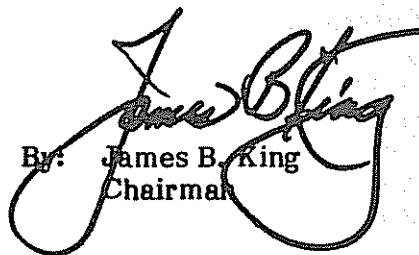
In this accident, when the flexible rubber facing strips compressed around the passenger's ankle, the gap between the doors was small enough to permit the doors to close and lock. However, there was apparently not sufficient space after they had closed for the passenger to pull his foot from the closed doors, and the passengers in the car were not able to pry open the doors before the train started.

To eliminate the possibility of a person being trapped between the closed doors of these cars after the train is moving, the National Transportation Safety Board recommends that the Southeastern Pennsylvania Transportation Authority:

Change the construction of the side doors on these cars so that they cannot be closed and locked on a person. Establish a control circuit which will prevent the train from moving until all doors are in the closed position. (Class I, Urgent Action) (R-80-8)

Establish a control circuit which will prevent the train from moving until all doors are in the closed position. (Class I, Urgent Action) (R-80-9)

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


By: James B. King
Chairman