

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: May 31, 1978

Forwarded to:

Honorable John M. Sullivan
Administrator
Federal Railroad Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

R-78-23

About 2:53 a.m. on October 8, 1977, Southern Railway Company passenger train No. 1, The Crescent, entered a crossover from the main track into the Spencer Yard at Spencer, North Carolina, and sideswiped freight cars which were being assembled as train No. 152 on an adjacent yard track. Four locomotive units and five cars of The Crescent and seven cars of train No. 152 were derailed. Twenty-six persons received minor injuries and damage was estimated to be \$250,000. 1/

The Safety Board's investigation of the accident found that The Crescent received a clear (green) aspect on signal 330.7, which governed the entrance to the signal block in which the crossover was located. The Southern Railway used a shunt circuit imposed on the track by contact closure in a switch-operated circuit controller. Though one contact in the circuit controller was never observed to fail during tests, two other incidents were revealed in which the circuit controller failed to shunt the track to produce a red signal aspect on the governing signal. These reports lead the Safety Board to conclude that the circuit controller failed to shunt the track.

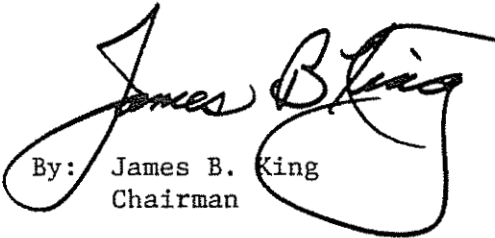
The application of the circuit controller in the shunt circuit configuration is not in accordance with the Federal Railroad Administration's Rules, Standards, and Instructions which state that "all control circuits the functioning on which affects safety of train operation shall be designed on the closed circuit principle...." The shunt circuit as applied does not provide this protection, nor does it provide broken rail protection between the point of application and the governing signal.

1/ For more detailed information on this accident read Railroad Accident Report, Side Collision of Southern Railway Company Trains Nos. 1 and 152, Spencer, N.C., October 8, 1977, (NTSB-RAR-78-3).

As a result of this investigation, the National Transportation Safety Board recommends that the Federal Railroad Administration:

Require that the track shunt circuit imposed by contact closure in a circuit controller be phased out as soon as practicable and a series break-type circuit, which will satisfy the requirements of the FRA's Rules, Standards, and Instructions, be used in place thereof. (Class II, Priority Action) (R-78-23)

KING, Chairman, McADAMS, HOGUE, and DRIVER, Members, concurred in the above recommendation.


By: James B. King
Chairman