

R-348

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: March 17, 1981

Forwarded to:

Mr. J. P. Fishwick
President and Chief Executive Officer
Norfolk and Western Railway Company
8 North Jefferson Street
Roanoke, Virginia 24042

SAFETY RECOMMENDATION(S)

R-81-37 and -38

About 8:10 a.m., on September 6, 1980, while operating on the westbound main track near Welch, West Virginia, eastbound Norfolk and Western Railway Company (N&W) freight train No. 86 collided with the sixth car of N&W Extra 1589 West. The accident occurred while Extra 1589 West was moving from the westbound main track onto an auxiliary center passing track at the east switch of Farm interlocking. The engineer, the fireman, and the front brakeman of train No. 86 were killed. Damage was estimated at \$1,446,553. 1/

A speed tape from the locomotive of train No. 86 indicated that the train was operated in compliance with applicable operating rules and speed requirements before and when it was crossed from the eastbound main track to the westbound main track at Davy, West Virginia. Based on the route the dispatcher established for train No. 86 and opposing Extra 1589 West, train No. 86 should have received a clear signal aspect at Mohegan, West Virginia; an approach aspect at the west end of Farm interlocking; and a stop-and-stay aspect at the east end of Farm interlocking.

The accident investigation established that train No. 86 received a proper approach signal aspect at the west end of Farm, but the train was not operated in compliance with Operating Rule No. 285 between the signals at west Farm and east Farm. The train's speed was not reduced before it collided with the sixth car of Extra 1589 West. The enginecrew of Extra 1589 West saw the fireman of train No. 86, who was operating the train, rise in response to their efforts to attract him and apply the train brakes in emergency. However, the fireman's action was too late to be effective before the collision.

The eastward approach view to the signal at the east end of Farm is only 457 feet. If the operator of train No. 86 missed the aspect of the signal at the west end of Farm, which has an approach view of only 414 feet, and was not operating the train to be prepared to stop, the train could not be stopped before passing the signal. Apparently, the operator of train No. 86 did not perceive the approach aspect on the signal at the west end of Farm, or he did not interpret it properly since the signal indication was not

1/ For more detailed information, read "Railroad Accident Report--Side Collision of Norfolk and Western Railway Company Train No. 86 with Extra 1589 West, near Welch, West Virginia, September 6, 1980 " (NTSB-RAR-81-2).

complied with. The length of the time cycle on the alertness control device would permit an operator of a locomotive to miss a signal aspect without his receiving an alarm when only a short approach sighting is available. The Safety Board cannot be certain that the fireman of train No. 86 would have seen an advance approach aspect if one had been presented to the train at Mohegan. However, such a signal would provide an approach view of 1,300 feet and provide more time for it to be perceived from an approaching train. The Safety Board believes that by providing engineers more advance information about restricting signals, such as an advance approach, the chances of an engineer running past a signal are greatly reduced.

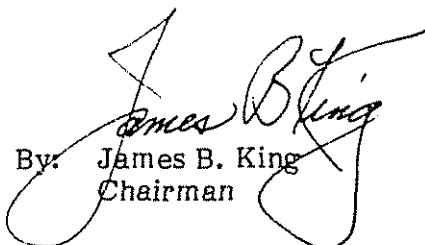
Since the enginecrew reported for duty at a location where they were not observed by an operating department official, their fitness for duty is unknown. A 226-mile interdivisional run over a railroad with the curvature and short sight distance typical of the area in which the accident occurred places increased demands on the crew to stay alert. Such demands can only be met by crewmembers who are physically and mentally fit.

Therefore, as a result of the investigation of this accident, the Safety Board recommends that the Norfolk and Western Railway Company:

Modify existing signals so that an "advance approach" aspect will be displayed for eastbound trains on both tracks at Mohegan when an "approach" aspect is displayed on either track at the west end of Farm. Where similar conditions exist at other locations, also provide an advance approach aspect. (Class II, Priority Action) (R-81-37)

Establish supervisory procedures at crew-change terminals to insure that all operating department employees coming on duty at any hour of the day are physically fit and capable of complying with all pertinent operating rules. (Class II, Priority Action) (R-81-38)

KING, Chairman, DRIVER, Vice Chairman, and McADAMS and BURSLEY, Members, concurred in the above recommendations. GOLDMAN, Member, did not participate.


By: James B. King
Chairman