Log R-474

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: June 18, 1984

Forwarded to:

Mr. R. D. Sanborn
President and Chief Executive Officer
Seaboard System Railroad
500 Water Street
Jacksonville, Florida 32202

SAFETY RECOMMENDATION(S)

R-84-33 and -34

At 5:32 a.m., c.d.t., on September 14, 1983, Seaboard System Railroad (SBD) train Extra 1751 North moved onto the main track from the north end of the siding at Sullivan, Indiana, and proceeded northward. About 5:37 a.m., after Extra 1751 North had attained a speed of approximately 18 mph and had traveled 1,939 feet beyond the siding switch, SBD train Extra 8051 North, moving about 35 mph, overtook and struck the rear caboose of Extra 1751 North. The impact derailed 2 cars and 2 cabooses of Extra 1751 North and 3 locomotive units and 25 cars of Extra 8051 North. The two crewmembers in the rear caboose of Extra 1751 North were killed, and three crewmembers on Extra 8051 North were injured. No hazardous material cars were involved in the derailment. 1/

The postaccident signal tests indicated that the last aspect displayed by the absolute signal at South Sullivan before the accident was an approach (yellow) aspect. A proper response to this signal indication would have been for the head brakeman of Extra 8051 North, since he was operating the train, to have reduced the speed of the train to no more than medium speed (30 mph) and to have proceeded prepared to stop at North Sullivan. The last aspect displayed by the absolute signal at North Sullivan, as determined by the postaccident tests, was stop (red). In order for the head brakeman to have operated the train past the absolute stop signal, special authority would have been required from the train dispatcher. Such authority was neither requested nor granted. The head brakeman should have stopped the train in approach to this signal, but he did not.

The signal at the ICG crossing south of Sullivan and intermediate wayside signal 207.0 each displayed an approach medium signal aspect because the signal for the main track at North Sullivan was displaying a stop aspect after the passage of train No. 722. These aspects should have forewarned the head brakeman of Extra 8051 North to expect an approach aspect to be displayed by the signal at South Sullivan and a stop aspect to be displayed by the signal at North Sullivan. The head brakeman did not respond to these two signals as evidenced by his passing the approach aspect displayed by the signal at South Sullivan without reducing the speed of the train to the 30-mph medium speed and preparing to stop at the next signal as required by operating rule No. 285.

1/ For more detailed information, read Railroad Accident Report--"Rear End Collision of Seaboard System Railroad Freight Trains Extra 8051 North and Extra 1751 North, Sullivan, Indiana, September 14, 1983" (NTSB/RAR-84/02).

Had a procedure been in effect which required the engineer to radio the five wayside signal aspects between North Oaktown and North Sullivan to the conductor, the conductor might have been alerted to the inattentiveness of the enginecrew and been able to take preventive action. On September 10, 1976, the Safety Board recommended that the Federal Railroad Administration (FRA),

> Promulgate rules to require enginecrews to communicate fixed signal aspects to conductors while trains are en route on signalized track. (R-76-50) 2/

On May 13, 1977, the FRA replied that "in keeping train crews alert, a diligent carrier conducted rules instruction and testing program on operating rules would be a great deal more effective than would be federally promulgated rules of the type recommended in R-76-50." The Safety Board reiterated this recommendation on April 7, 1981, following its investigation of an accident at Hermosa, Wyoming. 3/

Similar recommendations have been made to individual railroads and to the Association of American Railroads (AAR). None of the recommendation recipients has concurred in the recommendations. The Safety Board maintains its position that such a requirement would enable the conductor to better monitor the performance of the enginecrew and consequently the handling of the train. Likewise, it would serve to keep the rear crew alert.

Therefore, as a result of its investigation of this accident, and based on a firm belief in the merit of the recommendations addressing the passing of wayside signal aspects from the head-end crew to the rear-end crew, the Safety Board is reissuing herein the procedures outlined in its previous recommendations in a new recommendation to the SBD.

The engineer of Extra 8051 North had about 11 drinks between 11 a.m. and 4:50 p.m. on September 13. Based on the bartenders' statements about the times these drinks were served and the amount of vodka in the drinks, the Safety Board calculates that the engineer's BAL would have been only about 0.005 percent at 10:30 p.m. when he reported for work, assuming he did not consume any more alcohol between 4:50 p.m. and 10:30 p.m. The engineer contends that he did not drink any alcohol after 4:50 p.m.

However, the blood sample drawn from the engineer about 10 a.m. on September 14, 4 1/2 hours after the accident, revealed that the engineer's BAL was 0.27 percent. Using a metabolic rate of 0.015 percent per hour, the Safety Board calculates that the engineer's BAL would have been 0.33 percent at the time of the accident. Assuming that the engineer had a 0.005 percent BAL at 10:30 p.m. when he reported for work, he would have had to consume 18 ounces of an 80-proof alcoholic drink in the 6 1/2 hours between his reporting for duty and his going to sleep at Oaktown.

2/ Railroad Accident Report--"Head-on Collision of Two Penn Central Transportation Company Freight Trains near Pettisville, Ohio, February 4, 1976" (NTSB-RAR-76-10).
3/ Railroad Accident Report--"Rear-End Collision of Union Pacific Railroad Company Freight Trains, near Hermosa, Wyoming, October 16, 1980" (NTSB-RAR-81-3).

The Safety Board has expressed concern before as a result of postaccident investigations about the lack of supervision for crewmembers when they report for or complete a tour of duty. 4/ The Board believes that a procedure for verifying a crewmember's capability of performing all facets of his or her job safely will reduce the risk of a crewmember reporting for duty under the influence of alcohol or drugs. If crewmembers know that their sobriety or stability will be scrutinized when they complete a tour of duty, it should provide an incentive for them to refrain from alcohol or drug use while on duty. While it is questionable how effective an examination of the enginecrew of Extra 8051 North might have been at Evansville, their condition most certainly would have been discernible at Danville when they completed their tour of duty. If they had expected their condition to be examined at Danville, they might have abstained from the alcoholic beverage.

Therefore, the National Transportation Safety Board recommends that the Seaboard System Railroad:

> Develop and implement a rule requiring enginecrews to communicate to the rear crews the aspects displayed by all wayside signals governing the progress of the train, irrespective of the signal indication. (Class II, Priority Action) (R-84-33)
>
> Establish procedures at initial and terminal crew reporting points that will verify that crewmembers are not under the influence of alcohol or drugs and that crewmembers are or have been fully capable of performing the duties of their assignment safely. (Class II, Priority Action) (R-84-34)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY and GROSE, Members, concurred in these recommendations.

By: Jim Burnett
Chairman

4/ Railroad Accident Reports: "Rear End Collision of Southern Pacific Transportation Company Freight Trains 02-HOLAT-21 and 01-BSMFK-20, Thousand Palms, California, July 24, 1979" (NTSB-RAR-80-1); "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).