Log R-639



## **National Transportation Safety Board**

Washington, D. C. 20594

## Safety Recommendation

Date: AUG 2 3 1991

In Reply Refer To: R-91-39 and -40

Honorable Gilbert C. Carmichael Administrator Federal Railroad Administration 400 7th Street, S.W., Room 8206 Washington D.C. 20590

On Wednesday, November 7, 1990, about 4:11 a.m. Pacific standard time, two Atchison, Topeka and Santa Fe Railway Company (ATSF) freight trains collided head on at milepost (MP) 25.6 in Corona, California. The westbound ATSF freight train 818, which was traveling from Barstow, California, to Hobart yard, City of Commerce, California, was on the Corona siding. It passed the stop signal, and the lead locomotive reentered the main track area, blocking all movement on the main track. The eastbound ATSF freight train 891, which was traveling from Hobart yard to Chicago, Illinois, was on the main track and collided with train 818. Each train had three-person crews.<sup>1</sup>

As a result of the collision, the entire crew of ATSF 818 was killed and four locomotives and three rail cars were derailed. The engineer and conductor of train 891 sustained serious injuries and the brakeman was killed; all three locomotives and five rail cars were derailed. The total damage was estimated to be \$4,400,000.

Although the ATSF was in complete compliance with the maintenance of hours-of-service records as specified by 49 CFR subpart 228.11, investigators had trouble deciphering the information in these records pertaining to the work/rest cycles of the engineer on train 818. The ATSF developed its own record keeping system because there were no Federal guidelines to assist carriers in providing and maintaining the information. As the importance of tracking work/rest cycles grows within the rail industry, so will the importance of the format used in recording the necessary information. The Safety Board believes that a simple format should be designed by the FRA so that it is easier to follow hours-of-service information.

<sup>&</sup>lt;sup>1</sup>For more detailed information, read Railroad Accident Report--"Atchison, Topeka and Santa Fe Railway Company (ATSF) Freight Trains ATSF 818 and ATSF 891 on the ATSF Railway, Corona, California, November 8, 1990" (NTSB/RAR-91/03).

Due to the lack of data, the Safety Board could not analyze the prevalence of fuel-tank-induced fires in rail collisions. The FRA data collection system does not specifically address the matter of fuel tank involvement in accidents.

The Safety Board is concerned that diesel fuel-generated fires can trap and burn crewmembers and cargo, contribute to starting hazardous-materials fires in the train, and place nonrailroad property in harm's way. Of the 643 rail accidents that have been investigated by the Safety Board, 23 had damaged locomotive fuel tanks that resulted in fire. The Safety Board believes that there is a need to analyze the location and protection of the locomotive fuel tanks. Thus, more information is needed concerning accidents that involve damaged fuel tanks.

Consequently, the Safety Board believes that the FRA needs to revise its data collection procedures so that it can identify the kinds of units that are involved in accidents, the accidents that involve fires, and the accidents in which the fuel tanks are ruptured.

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

> Develop a uniform simplified format for work-record data collected by the rail carriers. (Class II, Priority Action) (R-91-39)

> To enhance current accident data collection and analysis, require the recording of data pertaining to postcrash fires involving locomotive fuel tank rupture and spillage, as well as types of locomotive units involved. (Class II, Priority Action) (R-91-40)

Also, the Safety Board issued Safety Recommendations R-91-41 through -44 to the Atchison Topeka and Santa Fe Railway Company, R-91-45 and -46 to the Association of American Railroads, R-91-47 to the Brotherhood of Locomotive Engineers, R-91-48 to the United Transportation Union, R-91-49 to the California Public Utilities Commission, and R-91-50 to the California State Fire Marshal's Office.

KOLSTAD, Chairman, COUGHLIN, Vice Chairman, and LAUBER, HART, and HAMMERSCHMIDT, Members, concurred in these recommendations.

By: James L. Kolstad

Chairman