

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: February 11, 1981

Forwarded to:

Mr. Robert E. Gallamore  
Deputy Administrator  
Federal Railroad Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

R-81-34 and -35

About 7:58 a.m., on July 26, 1980, 4 locomotive units and 17 cars, including 7 placarded tank cars containing hazardous materials, of Illinois Central Gulf Railroad Company freight train No. 64 were derailed while moving at a calculated speed of about 35 mph around a 6° curve in Muldraugh, Kentucky. Two tank cars of vinyl chloride were punctured and their contents burned. Flames impinged two other tank cars of vinyl chloride, causing one to vent toxic fumes, but neither car ruptured. About 6,500 persons were evacuated from Muldraugh and the U.S. Army installation at Fort Knox. Four train crewmembers were injured during the derailment, and property damage was estimated at \$1,348,394. <sup>1/</sup>

Investigation of this accident disclosed that train No. 64 derailed while moving on a track supposedly maintained to the Federal track safety standards for Class 3. An examination of the track in the curve and leading to the derailment disclosed excessive rail wear, and irregularities and deterioration in gage, cross-ties, tie plate placement, and spiking conditions.

Many of the track irregularities found at the time of this derailment were acceptable deviations under standards for Class 3 track. Other irregularities, however, either were not subject to regulation or were subject to a difference in interpretation or a combination of conditions. The lack of clear and specific regulations, the carrier's option to lower the classification of a track in lieu of repair, and the carrier's "need to know" of the defective conditions before bringing the track into compliance and before being subject to penalties were factors that contributed to the accident.

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

Institute surveillance of the maintenance of Louisville District trackage of the Illinois Central Gulf Railroad Company until it is brought into conformance with the requirements of the FRA track safety standards. (Class II, Priority Action) (R-81-34)

<sup>1/</sup> For more detailed information read "Railroad Accident Report--Illinois Central Gulf Railroad Company Freight Train Derailment, Hazardous Material Release and Evacuation, Muldraugh, Kentucky, July 26, 1980" (NTSB-RAR-81-1).

Promulgate regulations which designate the limit of acceptable rail wear and which require railroads to remove from active tracks rails that are worn beyond the acceptable limits. (Class II, Priority Action) (R-81-35)

In addition, the National Transportation Safety Board reiterates the following recommendations previously made to the Federal Railroad Administration as a result of other train accident investigations:

Amend track geometry standard 49 CFR 213.55, Alignment, so that it defines "uniformity," establishes a maximum rate-of-change in alignment deviation, and establishes the maximum number of feet between which each alignment mid-offset measurement shall be taken. (R-77-6)

Amend track geometry standard 49 CFR 213.63, Track Surface, so that it defines "uniform profile," establishes maximum rate-of-change in profile and cross level deviations, and establishes the maximum number of feet between which each profile midordinate measurement and each cross level measurement shall be taken. (R-77-7)

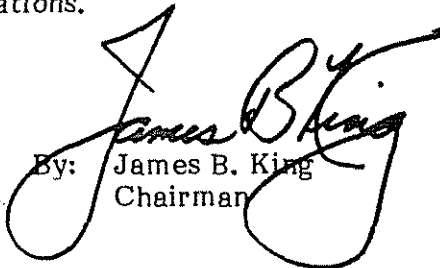
Include in review of the current FRA track safety regulations, investigation and testing to determine if the minimum track conditions that are required for the FRA classes of track by 49 CFR 213.9 are adequate for all types of trains for the maximum allowable speed for each class. (R-77-8)

Immediately revise the track safety standards to eliminate the subjectivity, incompatibility, vagueness, and unenforceability. The requirements should be made more explicit so as to insure the detection and correction of all combinations of track conditions which cause derailments. (R-79-19)

Determine the ultimate safety effect of allowing the indiscriminate lowering of main track classifications instead of maintaining the track at original intended class. (R-79-25)

Amend track safety standards 49 CFR 213.241, Inspection Records, to require railroad inspectors to list on their inspection records the location of rails which exhibit the external conditions listed in subpart (b) of 49 CFR 213.113, Defective Rails, and the remedial action they have taken. (R-80-32)

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

By:  James B. King  
Chairman