

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: October 13, 1977

Forwarded to:

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

SAFETY RECOMMENDATION(S)

R-77-29

About 2:55 p.m., on November 26, 1976, 24 cars of Burlington Northern freight train Extra 5743 East, derailed at Belt, Montana. Twenty-two persons were injured as a result of the accident and two persons are missing. The accident resulted in more than \$4.5 million damage, most of which was non-railroad property. <sup>1/</sup>

The accident resulted from a rail failure which originated from a detectable internal defect in a 90-pound rail that was more than 70 years old. The wheel loads to which the rail was regularly subjected exceeded the design capability of the section. In addition, the rail was rolled many years before the "control-cooled" process was adopted by American steel mills to prevent the development of transverse fissures.

Federal regulations did not require that the rail be tested annually for internal defects because it was in Class 3 track that was not used by passenger trains. However, the Burlington Northern had tested the rail inductively and ultrasonically in a way that would comply with regulations for higher class trackage. In spite of the tests 4 months before the accident, transverse fissures developed from a detectable inclusion and the rail failed under the dynamic loads of the train.

<sup>1/</sup> For more detailed information on this accident, read "Derailment of a Burlington Northern Freight Train at Belt, Montana, November 26, 1976," NTSB-RAR-77-7.

(2)

If regulations allow the use of rail sections which are overloaded by normal dynamic wheel loads, the regulations should require rail tests which indicate incipient internal defects before they result in service failures. Therefore, the National Transportation Safety Board recommends that the Federal Railroad Administration:

Revise 49 CFR 213.237, Inspection of Rail, to insure the discovery of internal defects in all track, Classes 3 to 6, inclusive, before those defects develop into failures. (Class II, Priority Followup) (R-77-29)

BAILEY, Acting Chairman, McADAMS, HOGUE, and HALEY, Members, concurred in the above recommendations.

A handwritten signature in cursive script that reads "Kay Bailey".

By: Kay Bailey  
Acting Chairman