

10. The compilation of rail failure statistics has been discontinued by AREA at a time when the need for such information is paramount.
11. Fewer rail failures would occur if rail, ties, and ballast replacement progressed at a rate consistent with needs.
12. Current FRA Track Standards attempt to control rail failure through design and maintenance specifications for other track components, instead of through the rail itself.
13. The FRA Track Standard (49 CFR 213.237) requires annual testing of rail for internal defects but does not consider the many variables that contribute to the frequency of failures of particular rails. This standard will not result in the testing of any more rail than was accomplished before its adoption, nor will it deter train accidents resulting from rail failures.
14. There are few research projects underway that involve the advancement of rail technology. Rail purchases have not provided the necessary incentive to promote research by rail manufacturers.
15. FRA research priorities have not included projects directed to the correction of the rail failure problem.
16. Accelerated detection of rail defects offers the most immediate potential for controlling the number of train accidents caused by rail failure.
17. Rail technology must be advanced for the safe and efficient control of rail failures and resulting train accidents.

RECOMMENDATIONS

2-74-1-8

The National Transportation Safety Board recommends that the Federal Railroad Administration:

1. Revise its criteria for reporting train accidents so that the causal categories involving rail failures are consistent with other FRA regulations and accurately identify those areas requiring further corrective measures. (Recommendation No. R-74-1)
2. Determine the reasons that the number of train accidents attributed to broken rails has increased at a rate four times the rate of increase in rail failures. (Recommendation No. R-74-2)
3. Promulgate track safety standards that describe the various combinations of rail sections and rail wear limits which are compatible with

current standards for track geometry and track structure. (Recommendation No. R-74-3)

4. Study the factors that affect rail failures and develop criteria that will promote effective rail inspection procedures and regulations. (Recommendation No. R-74-4)

5. Develop improved methods of detecting rail flaws in track. Explore the feasibility of including a rail inspection capability on the inspection car that is being developed to measure track geometry. (Recommendation No. R-74-5)

The National Transportation Safety Board recommends that:

6. The Association of American Railroads (AAR), the Federal Railroad Administration, and the manufacturers of rail steel initiate a cooperative long range research program to accomplish those goals set forth in the AAR's recent study of rail. (Recommendation No. R-74-6)

7. The Association of American Railroads request its members to review their track maintenance policies, especially those policies concerning rail inspection, and to institute immediate corrective action to reduce the number of train accidents that result from broken rails. (Recommendation No. R-74-7)

8. The Association of American Railroads and the American Railway Engineering Association gather and evaluate the data which is necessary to identify the types and magnitude of rail failures experienced by American railroads. This information should be computerized for rapid retrieval. (Recommendation No. R-74-8)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOHN H. REED
Chairman

/s/ FRANCIS H. McADAMS
Member

/s/ LOUIS M. THAYER
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