

II. The Safety Record of Railroad Bridges

During the past five decades, not one fatality has been caused by the structural failure of a railroad bridge. Train accidents caused by the structural failure of railroad bridges have been extremely rare.

Although the average construction date of railroad bridges predates most highway bridges by several decades, the older railroad bridges were designed to carry heavy steam locomotives. Design factors were generally conservative, and the bridges' functional designs permit repairs and reinforcements when necessary to maintain their viability.

Railroad bridges are most often privately, rather than publicly, owned. Their owners seem to recognize the economic consequences of neglecting important maintenance. Private ownership enables the railroads to control the loads that operate over their bridges. Cars and locomotives exceeding the nominal capacity of a bridge are not operated without permission from the responsible bridge engineers, and then only under restrictions and conditions that protect the integrity of the bridge.

Many railroad bridges display superficial signs of deterioration but still retain the capacity to safely carry their loads. Corrosion on a bridge is not a safety issue unless a critical area sees significant loss of material. Routine inspections are prescribed to detect this condition, but determination of its effect requires a detailed inspection and analysis of the bridge. In general, timber bridges continue to function safely, and masonry structures built as early as the 1830's remain functional and safe for their traffic.

Of the few train accidents that involved bridges, most have not been caused by structural failure. FRA accident records for 1982 through 1993 show 15 train accidents that were caused by bridge structural failures, including three that involved improper repair procedures. These accidents caused no reportable injuries and a reported \$856,046 damage to railroad facilities, cars and locomotives.

During the same period, 29 train accidents on or near bridges were caused by track conditions on the bridge or its approaches. These accidents caused no reportable injuries, and a reported \$4,596,733 damage to railroad facilities, cars and locomotives.

The same time period saw 19 train accidents on bridges caused by external damage to the bridge, including three fires, 11 floods or washouts, four bridges struck by motor vehicles, and one bridge struck by a marine vessel. The accident

at Mobile, Alabama on September 22, 1993 alone caused 47 fatalities, 102 non-fatal injuries, and over \$10,000,000 in property damage. The losses from these 19 accidents totaled 47 fatalities, 124 non-fatal injuries, and \$22,150,865 damage to railroad facilities, cars and locomotives.

IV. Bridge Safety Policy

The severity of a train accident is usually compounded when a bridge is involved, regardless of the cause of the accident. FRA must retain its capability to deal effectively with any safety problems involving the structural integrity of railroad bridges. At the same time, FRA must assure that private and public resources are not diverted unnecessarily from other programs that are also critical to railroad safety.

At one extreme, FRA could respond to bridge issues only when accidents occur or when someone contacts the agency about particular concerns. However, such a reactive policy would inhibit FRA's ability to detect impending problems with railroad bridges. At the other extreme, FRA could regulate all aspects of railroad bridge management, including inspection, rating, construction and maintenance. The expense to the railroad industry of such a policy is not justified by the findings of the safety survey.

Because the industry has no apparent systemic bridge safety problem, FRA chooses to adopt a policy, rather than issue regulations, to carry out its responsibility of protecting bridge safety. The policy includes non-regulatory guidelines to inform railroad managers and all concerned about current good practices related to bridge inspection and management. The guidelines accommodate a wide variety of effective bridge inspection and management methods.

Even without specific bridge safety regulations, FRA maintains authority under 49 U.S.C. 20101 *et seq.* (formerly the Federal Railroad Safety Act of 1970) to inspect any railroad facility that affects safety and, if necessary, to remove it from service. The guidelines represent the general criteria against which FRA will evaluate each railroad's bridge inspection and management program.

FRA does not expect that its policy will unnecessarily divert resources away from the functional work of bridge management by forcing railroads to change effective bridge management programs. Likewise, the policy should not require FRA to divert public resources to employ a large staff of bridge specialists.

FRA will revise the guidelines as necessary to accomplish the objectives of the bridge safety program. To that end, FRA will continue to monitor and evaluate the railroads' bridge inspection and management programs to guarantee that those responsible for the safety of bridges continue to meet their responsibilities. FRA will make its findings available to the public upon request, excluding any proprietary information received and identified as such. Should FRA find through its monitoring that widespread bridge structural problems have developed, it may use the information it has gathered to commence a rulemaking proceeding.

Effect of This Interim Statement of Policy

The purpose of this notice is to issue an interim statement of policy containing guidelines for the proper maintenance of bridge structures. It is meant to be advisory in nature; it does not have the force of regulations under which FRA ordinarily issues violations and assesses civil penalties.

However, FRA maintains emergency authority to issue emergency, compliance, and disqualification orders, as well as authority to seek injunctive relief in federal district court, under 49 U.S.C. 20104 (formerly known as the Federal Rail Safety Act of 1970) and 49 CFR part 209. FRA will exercise this authority when an unsafe condition or improper maintenance of a railroad bridge creates an imminent hazard of death or injury to persons. Furthermore, should FRA, in the future, find the need to address bridge integrity in a regulatory proceeding, it will do so.

Following the comment period, FRA will issue any necessary changes to the interim statement of policy. The notice of changes will appear simultaneously with the Notice of Final Rule for the proceeding amending the track safety standards in 49 CFR part 213, begun in November, 1992. (See 57 FR 54038, November 16, 1992.) Except as modified in response to the comments, this interim statement of policy will become a final statement of policy at that time.

Public Participation

Because the interim statement of policy is advisory in nature, notice and public participation are not required. However, the public is invited to submit comments within 30 days following its publication.

FRA would appreciate comments about its plan to issue a statement of policy rather than regulations governing railroad bridge maintenance. FRA would also welcome comments about the value of permanently placing the