R-316 AZ.4

## NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: September 12, 1980

Forwarded to: Honorable John M. Sullivan Administrator SAFETY RECOMMENDATION(S) Federal Railroad Administration 400 7th Street, S.W. R-80-38 Washington, D.C. 20590

On January 18, 1979, a bridge on the Illinois Central Gulf Railroad over the Alabama River, Hunter, Alabama collapsed, while a 68-car freight train was crossing the bridge. One bridge span and five freight cars fell into the river. One of the cars, a bulkhead flatcar, was transporting cast-iron pipe at the time of the accident. Although all evidence could not be recovered and evaluated, there was sufficient evidence to indicate that the load of pipe shifted, struck the bridge, and caused the bridge to collapse.

More recently, on April 13, 1980, a highway bridge over railroad tracks near Mascot, Nebraska, collapsed after the bridge's support structure was struck by steel beams protruding from a Burlington Northern Railroad gondola car. The steel beams had shifted on the car because of improper design of the tiedowns.

From the beginning of 1977 through 1978, 2 fatalities and 24 injuries resulted from 256 accidents which were caused by shifted loads or loads falling off cars. Shifting loads have caused unbalanced forces which have resulted in overheated bearings or derailments due to off center loading. Shifting loads can get outside the clearance envelope and strike stationary trackside objects or other trains passing on adjacent tracks. There have been incidents wherein shifting loads have struck or fallen on persons in the vicinity of passing trains. While not a direct result of improper loading, the accident at Linden, New Jersey, where rail from a railroad work train sideswiped a passenger train, is typical of the consequences that can occur due to improper loading.

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

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Promulgate regulations to ensure that safe open-top loading and securement procedures are established and adhered to on all railroads. (Class II, Priority Action) (R-80-38)

KING, Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in this recommendation. DRIVER, Vice Chairman, did not participate.

Surfaction Sursley James B. King

Chairman