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VII. RECOMMENDATIONS

The Safety Board recommends that:

1. The Federal Railroad Administration, in cooperation with the railroad industry, initiate research and development which will result in practical locomotive instrumentation capable of recording data relating to the braking behavior of trains. The data obtained should be of sufficient scope and accuracy to allow evaluation of the braking performance of the train and to record the manner in which the brakes were applied. The project should contemplate initially the instrumentation on sufficient numbers of locomotive units to insure a sampling of freight train accidents and should include provision for cooperative evaluation of records by Government and industry.

R-70-16

2. The Federal Railroad Administration initiate research and development to provide prototype models of freight train braking systems

(a) capable of providing shorter stopping distances which nearly approach the theoretical limit under all conditions of loading and length of trains;

(b) capable of stopping a train in the emergency applications now required by regulations without internal collisions, train separations, or damage to the train or its lading;

(c) capable of propagating brake application, both service and emergency, throughout the length of a train more expeditiously and surely;

(d) capable of more rapid application of the full intended stopping force to the rails at each car after the application signal is received at each car.

R-70-17

3. The Illinois Central Railroad Company initiate a program to train employees in the proper procedures to insure adequate protection to employees and bystanders at accidents involving hazardous materials.

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The Safety Board reiterates and emphasizes the following recommendations made in the report of the accident which occurred on the Southern Railway at Laurel, Mississippi, on January 25, 1969:

"5. . . . the Association of American Railroads and American Short Line Railroad Association develop plans that will result in the fire chief of each community through which the track of a member road passes knowing where immediate information can be obtained, describing the location and characteristics of all hazardous materials in any train involved in a train accident that affects a community. This recommendation can be accomplished in a relatively short time regardless of the level of training which may be achieved later by fire departments.

"10. . . . the A.A.R. review the function of the Bureau of Explosives regarding its performance in protecting the public from danger resulting from railroad accidents involving hazardous materials and take the necessary action to develop an effective, cooperative program with the carriers to accomplish the intended purpose of the responsibility delegated to the Bureau of Explosives by Title 49, Code of Federal Regulations, Section 174.506. The Board endorses the FRA's proposed amendment of the regulations which will provide that reports of incidents and accidents involving hazardous materials presently made to the Bureau of Explosives by rail carriers will also be filed with the FRA.

"11. . . . the Federal Railroad Administration include in its current study of an improved coupler design, the problem of keeping cars coupled and in line with the track and with each other after a derailment occurs. In order to attain an integrated organization of track and rolling stock features that could limit the after effects which can now follow a simple derailment, the Federal Railroad Administration should also study related technical approaches to control interference with traffic on adjacent tracks and wayside structures during derailments, such as means of limiting the lateral excursion of wheels, and separation of trucks from car."

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOHN H. REED Chairman

/s/ OSCAR M. LAUREL Member

/s/ FRANCIS H. McADAMS Member

/s/ LOUIS M. THAYER Member

/s/ ISABEL A. BURGESS Member

August 19, 1970