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HEARINGS BEFORE THE TRANSPORTATION AND AERONAUTICS SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE, U.S. HOUSE OF REPRESENTATIVE ON H.R. 14077, A BILL TO AMEND THE FEDERAL RAILROAD SAFETY ACT OF 1970 AND OTHER RELATED ACTS TO AUTHORIZE ADDITIONAL APPROPRIATIONS AND FOR OTHER PURPOSES

Mr. Chairman, I am again pleased to be before your subcommittee to discuss the extremely important subject of railroad safety and the Administration's proposal to amend the Federal Railroad Safety Act of 1970 to authorize additional appropriations and for other purposes.

I think we are all aware of the increased attention given by the public sector to the railroad industry. The bankruptcy of a large number of railroads in the northeast and midwest section of the country has given the public sector grave concern. Further, the public demand for energy-efficient and environmentally sound forms of transportation makes it clear that the Government, Federal and State, must take the appropriate steps to insure this Nation of a safe and economically sound rail transportation system.

This morning I would like to discuss with you FRA's railroad safety program, and the steps FRA has taken to reduce the number of accidents and injuries which result from rail

operations. Partly as a result of the energy crisis the railroad industry has experienced a noticeable increase in ton miles and train miles operated. Coupled with this increase in operations has been an increase in rail accidents and injuries. Preliminary statistics for railroad accidents reported to the Federal Railroad Administration for 1973 indicate that the number of train accidents has reached a 16 year high of 9,396, nearly a 25% increase in train accidents over 1972. At the same time it should be recognized that train miles run in 1973 (probably the best single index of exposure) were at an all time high and increased 6% over 1972. Also a portion of this increase may be attributable to inflationary factors in that the required reporting of train accidents was based on a monetary threshhold of $750, established in 1957. We are nevertheless extremely concerned over this unfavorable trend which commenced developing in the latter part of 1972 and we are taking a number of steps to combat it which I will discuss shortly.

In order to graphically demonstrate recent trends in railroad accidents I would like to submit for the record 17 charts which will point out problem areas and the relative level of railroad safety.

1) Train Accidents -- 1967 - 1973
2) Train Accidents -- 1930 - 1973
   reflecting change in monetary threshhold for reporting purpose
3) Train Accidents by General Cause -- 1972 - 1973

4) Train Accidents Due to Track Defects or Failures -- 1972 - 1973

5) Train Accidents Due to Equipment Defects or Failures -- 1972 - 1973

6) Derailments -- 1972 - 1973

7) Collisions -- 1972 - 1973

8) Casualties by Class of Person -- 1967 - 1973

9) Casualties to Employees in all Accidents -- 1967 - 1973

10) Fatalities by Class of Person -- 1967 - 1973

11) Casualties to Employees in Train Service Accidents -- 1972 - 1973

12) Casualties to Employees in Train Accidents -- 1967 - 1973

13) Revenue Ton Miles U.S. Railroads (Billions) -- 1967 - 1973

14) Capital Expenditures, Roadway and Structures -- 1962 - 1973

15) Maintenance of Way and Structures Expense -- 1965 - 1973

16) Tie Renewals (Annual Average for Five Year Period) -- 1941-45 - 1971-72

17) New Rail Laid in Replacement -- 1941-45 - 1972

The Federal Railroad Safety Act of 1970 (the first major piece of railroad safety legislation enacted in almost half a century) has provided the Federal Railroad Administration with the necessary authority to make significant strides in promoting rail safety. Of great significance is the Track Safety Standards promulgated by FRA in 1971. These track standards became fully effective on October 16, 1973.

In November 1973 FRA, issued minimum safety standards for railroad freight cars. These standards describe defective conditions, prescribe inspection requirements for freight car components, and require journal bearings to be lubricated at prescribed intervals. These standards also prohibit or restrict use of certain cars and various makes and models of car components which are unsafe or not suited for general railroad service. These standards became effective January 1, 1974.

It is our belief that the implementation of these two sets of standards in combination will have a long range beneficial effect on safety of operations in the rail industry particularly in the area of derailments. I would emphasize the phrase long range effect, because I think it is important that this Committee understand that we are talking about a period of some four to five years during the initial portion of which derailments may continue to increase. This is not because these standards are ineffective, as some have charged, but rather because a certain amount of lead time is required for their effects to become apparent. The conditions responsible for the present increase in derailments are the result of at least a decade of deferring maintenance on track and equipment by the railroad industry so as to make ends meet. Until this year, there was no prohibition against doing so. Now there is and we are preparing to field, in cooperation with the States,

an inspection force capable of enforcing compliance with the standards. This in itself raises problems as most graphically demonstrated in connection with Penn Central's application for the exemption of some 6,900 miles from minimum Federal standards last Fall. We avoided the easy choices -- to require them to cease operations over the substandard track on the one hand, or to unconditionally exempt the trackage involved. After public hearings at which all relevant interests urged that continued operations be permitted, we decided to do so upon a set of stringent conditions and under close surveillance. Our experience under this exemption convinces us incidentally, that Class I standards or the so called minimum Federal Standards is indeed the appropriate safe minimum standard for track maintenance.

To enforce these two sets of standards, we have substantially increased the Office of Safety inspection force in the areas of track and motive power and equipment. Chart 18 illustrates Office of Safety staffing increases from 1970 through 1974. At the same time, we have made every effort to increase the efficiency of our inspection effort. To that end, we have recently reorganized the Office of Safety field inspection force to combine the locomotive and car inspection functions. This was done primarily because the new equipment standards are more similar to preexisting locomotive inspection standards than to

our prior car safety standards issued under the Safety Appliance Act. While using a single inspector to inspect both cars and locomotives will not be important at major terminals because these terminals require more than one inspector, it will be important at outlying points. At such points there are relatively few locomotives and/or pieces of equipment. Travel to and from the inspection points consumes a major fraction of the total time available for inspection. Under these circumstances the availability of a single inspector to inspect both should result in significant efficiencies which will be directly translatable into more inspections than would otherwise have been performed. Chart 19 reflects the reorganization of the field forces to which I have referred and also the present deployment of our field forces by region. While not all of the positions reflected on that chart are presently occupied, I can assure you that they will be by June 30.

I am not saying that our track standards or our equipment standards are perfect. Indeed, we are presently considering adding to the track standards a requirement for special inspection of field welded joints. Nor do we yet have a satisfactory answer to the problem of lateral fracture of rails which was addressed by the NTSB in a recent report on lateral fractures as an increasing cause of train derailments. We are working hard through our research program to come up with answers on this

subject and when we do, you may be assured that appropriate regulations on the subject will be added to our track standards. Similarly, we presently have under consideration amendments to the equipment safety standards. The point I would make is that we are moving to achieve a balance between research, regulation and enforcement in this area which should be effective in substantially reducing derailments in the future.

All of our efforts in this area will be of limited effectiveness, however, if the railroad industry simply does not have sufficient cash to make the investments necessary to comply with Federal standards. The best means of improving the position of the industry in this respect would be by enactment of the combination of regulatory reforms and financial assistance contained in the TIA bill (H.R. 12891) which is presently being considered by this subcommittee. I realize that legislation is beyond the scope of this hearing, but the financial condition of the industry is inextricably tied into its safety performance that it cannot be ignored.

On December 6, 1973 FRA issued regulations implementing section 206 of the Rail Safety Act establishing criteria which a State agency must meet to assist FRA in investigation and surveillance activities with respect to the enforcement of Federal track safety rules. FRA representatives have conducted a number of meetings

with State personnel in various locations around the country. Some problems with certain aspects of the program were identified during these initial meetings with the States. FRA has since then issued and distributed to all State agencies revised guidelines clarifying FRA regulations in these problem areas -- that is, the degree and application of Federal control, qualifications for track inspectors, and the statutory provisions for Federal payments. Under these revised guidelines FRA has issued a certification for the State of Missouri. In addition, we have received submissions for certification from the States of Washington, Arizona, and Alabama, and requests for an agreement from Vermont. We are hopeful that as many as 15 States will apply for and receive certification before the end of fiscal 1974, thereby establishing eligibility for cost sharing of the fiscal 1975 grant program. During fiscal 1975 we will establish conditions for eligibility for certification on equipment standards for implementation in fiscal 1976.

Additionally, FRA has published proposed rules pertaining to railroad operating rules and practices, passenger train visibility, tank car-tank head shields, and tank car safety vents. Further we are developing a proposal to revise our accident reporting regulations and to include rail rapid transit systems.

In the area of rail safety research, FRA has directed its efforts toward the development of safety regulations and the improvement of safety technology. As indicated on Chart 20 safety research is carried on under the authority of both the Railroad Safety Act and other appropriations. From a modest beginning in 1970, this year the combined total has increased to $10 million. The attached breakdown of research conducted under the Safety Act by major contract will be provided to the committee staff, as requested.

Effective research requires an analysis of accident causes so that priorities can be set. FRA rail safety research closely followed these categories of accidents which occurred during 1973:

1. Employee Related Accident Causes (24% of accidents)
2. Track Related Accident Causes (37% of accidents)
3. Equipment Related Accident Causes (20% of accidents)
4. Grade Crossing Accidents (3% of accidents)
5. Miscellaneous (16% of accidents)

Employee related train accidents in 1973 resulted in 32 of the 36 employees killed in train accidents, and 245 of the employees injured in train accidents. A high proportion of these fatalities and injuries occurred at the man/machine interface and are subject to improvement through improved employee

practices and training. A significant proportion of the most serious accidents are head-on and rear end collisions which are directly attributable to employee-related causes. Research work was undertaken during 1973 giving strong emphasis to this area. After completing preliminary studies in engineer task analysis and physiological requirements, our activities moved forward to studies of locomotive rules and training requirements. Arrangements were made during 1973 to set up an Operating Rules Advisory Committee to study potential improvement in this area. Concurrently, because of the close tie in between train operation and dispatching, a Dispatcher Task Analysis study was completed. Field testing in these areas consisted of (1) analysis of engineer responses under varying conditions, and (2) technical analysis of the types of equipment needed to assist the locomotive engineer in coping with the patterns of mass distribution found in train service. Additionally, task analysis of the responsibilities of trainmen and brakemen in road and yard service was initiated.

Of equal priority to that of the element of human factors were FRA programs focusing on defects and maintenance levels on track structures. During 1973 there were 3,465 track related accidents resulting in over $52 million in property damage. During 1972 there were only 2,500 track related accidents. In attacking this problem FRA has established facilities for track-train research at our High Speed Ground Transportation Test Center at Pueblo, Colorado, which includes our Rail Dynamics Laboratory and a 20 mile test track. Availability of these facilities is

anticipated during 1975. Concurrently with the establishment of these facilities we initiated a 5 year Improved Track Structure Research program. This program includes safety related activities in the following areas: rail-end technology, ballast performance improvement, and correlation of track stability with user demands. In addition, we continued operation of the 4 DOT rail research test cars. Planning is now underway to advance the state-of-the-art in track geometry and ride quality testing.

Of similar high priority are equipment related accidents which result from wheel and axle failures, journal and roller bearing failures, truck failures and coupler failures. FRA in cooperation with the Association of American Railroads and the Railway Progress Institute, has identified key areas in our equipment related safety research to include track-train dynamics, suspension systems, tank car safety research and equipment surveillance.

Of continuing intense public concern are hazards related to rail-highway grade crossings. While the total number of rail highway accidents has remained relatively constant, these accidents result in a high incidence of fatalities. In recognition of the fact that this area is one of primary concern to highway users, FRA has been actively working with FHWA to arrive at appropriate solutions to the problems of safety at

grade crossings. This effort to date has resulted in the publication of two joint reports on the subject and we are continuing to work actively with FHWA and NHTSA in implementing the mandate of the Highway Act of 1973.

The research program in this area includes analysis of driver behavior, data collection and processing, and the development of new innovative low cost protection equipment at rail-highway crossings. We are conducting studies in the standardization of protection equipment. Further we are concentrating on the establishment of a Grade Crossing Information System based on the national inventory of grade crossings. The Grade Crossing Information System will identify dangerous crossings enabling responsible parties to take appropriate steps to eliminate or minimize the inherent hazards.

FRA has also instituted a Railroad Accident Information Reporting System. It contains information on all rail accidents involving fatalities or $750 in damage to railroad property. The Railroad Accident Information Reporting System, however, is only one element of FRA's long-range goal, a comprehensive Safety Information System. This system which is currently being developed and which also includes the Grade Crossing Information System and the Locomotive Inspection Reporting System will be a valuable source of data by which the rail industry and government bodies can utilize for accident analysis and prevention.

This summarizes the efforts FRA is making to promote railroad safety.

Railroad safety will continue to be a matter of vital concern for the foreseeable future, and the Federal Government will have continuing responsibility in this area. For this reason we propose that the Federal Railroad Safety Act of 1970, as amended, be amended to permanently authorize appropriations for the continuation of the rail safety program, including the control over the transportation of hazardous materials.

Briefly H.R. 14077 would amend sections 212 and 303 of the Federal Railroad Safety Act of 1970 to authorize to be appropriated to the Secretary such sums as may be necessary to carry out the provisions of those titles.

Section 3 of the bill would repeal statutes relating to Ashpans, a study of block signal systems, the testing of safety appliances, and the inspection of and the reporting on mail cars, all of which are now obsolete and unnecessary to an effective program of safety regulations.

Section 4 of the bill would amend the penalty provisions of various railroad safety Acts enacted prior to the Federal Railroad Safety Act, to provide uniform enforcement procedures for all safety rules and regulations. The effect of this amendment is to make earlier statutes conform the penalties

and administrative procedures established under the Federal Railroad Safety Act. In the special case of the Accident Reports Act the amended penalty section would have the additional effect of substituting a civil penalty for a criminal one, and permitting settlement of claims under the Federal Claims Collection Act. Section 4(b) would amend the Hours of Service Act to enable the Department to develop regulations interpreting and implementing that Act. This will conform to the regulatory authority we now possess with respect to the other safety statutes we administer.

Section 5 of the bill would revise the Locomotive Inspection Act to conform with the provisions of Reorganization Plan #3 of 1965.

We note the introduction of H.R. 14076 which would extend authorization for appropriations under sections 212 and 303 of the Rail Safety Act for three years ending with FY 1977. The bill would authorize to be appropriated for each of these three years for the rail safety program amounts not to exceed $35 million, and $3,000,000 for the control of the transportation of hazardous materials. In addition, the bill would allocate the $35 million for specified purposes in the administration of our rail safety program. We do not favor the provisions of H.R. 14076 as we strongly feel that appropriations for our vitally important rail safety program should be permanently

authorized. By permanently authorizing appropriations it would avoid the need for an annual or triannual amendment of the Act, without limiting the ability of the Committees of Congress to oversee the administration of the Act. Further the specified allocation of the authorized amounts would in our judgment create administrative inflexibility.

As I have previously indicated, I am firmly convinced that the appropriate way to address safety problems in the railroad industry is through a combination of research, regulation and enforcement. An effective safety program must contain all of these elements. At the same time, a certain flexibility must be permitted as to which particular element is given major emphasis at any given time. Also, for the program to be effective, growth within each of these three areas must be coordinated.

We at FRA are committed to an orderly expansion of our safety capabilities as rapidly as possible so as to achieve a comprehensive safety program of the sort mandated by the Railroad Safety Act of 1970. The bill which we have presented and is the subject of this hearing, is of major importance to achieving that objective. I urge this Committee to act quickly and favorably on our proposed legislation.

This completes my formal statement, Mr. Chairman, and I will be pleased to answer any questions you may have.

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