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HANDBOOK FOR PRESERVATION OF LOCAL RAILROAD SERVICE

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16. Abstract Throughout the United States, there is an accelerating abandonment of redundant and/or unprofitable light density railroad lines. This abandonment can be economically harmful to both the shippers and the communities that were previously served. Although greater dependence upon truck transportation is a viable alternative in many cases, other situations indicate that the greatest priority should be attached to preserving some form of local railroad service. The objective of this research was to develop a Handbook to assist shippers, local and state governments, and rail planners when their Class I rail service is scheduled for abandonment. Two major options are detailed in the Handbook. The first regards innovative procedures which may be used by local groups in attempting to preserve service by the existing Class I carrier. The second approach considers the alternative of operating the particular line as an independent railroad.					
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Part I: Introduction to and Orientation of the Handbook

The Purpose of the Handbook and Whom It May Assist

This Handbook is designed to assist individuals or groups who *seriously* want to preserve a local railroad freight service that is threatened with, or already has been abandoned by, a rail carrier. For reasons to be discussed, these individuals or groups feel that continued rail service is absolutely essential to the present and/or future well-being of their area. They stand ready to support actively, perhaps even participate in, the effort to preserve rail service. This participation could involve appearances before Federal and state regulatory and promotional agencies, meetings with representatives of state and local governments, bargaining with large rail systems, physically working on a right-of-way or operating a rail line, and attempting to raise money to support the effort.

The Handbook realistically and candidly describes what is involved with rail preservation and provides possible directions which may be taken in attempting to preserve a service. This includes advice regarding what and what not to do when engaged in these efforts. If there is a particular emphasis or bias on the part of the authors, it is toward the "what not to do," for unfortunately what may work in one situation may not succeed in another. Specifically, we intend to underscore the problems and obstacles to rail preservation, including the minimum prerequisites for success.

After reading the Handbook, it is intended that one's eyes will be opened as to what will be encountered in rail preservation activities. For those who proceed once they have studied this manual, we most enthusiastically would wish them good luck.

What the Handbook Does NOT Do

There are four subjects related to railroad abandonment that are *not* discussed in the Hand-

book. They are mentioned here, and a short bibliography has been provided that the reader can pursue for further knowledge and aid in each subject area. The bibliography is not meant to be conclusive but optimally useful in view of

the limited references included.

Legal Counsel in Abandonment Proceedings

First, the Handbook will not provide local interests with a legal brief with which to fight the carrier that wants to abandon a light-density line. The authors, in fact, feel that abandonment proceedings have been too long and drawn out during the last few decades and that forcing privately-owned railroads to operate marginal or money-losing segments is one of the reasons for the carriers being in their present financial straits.

A few sources the reader may want to investigate relative to what is involved in rail abandonment are listed below. Most are textbooks, and if the users of this manual are not located near a city or a college/university with a fairly strong library facility, it is recommended that they contact the publisher directly to obtain the material.

John Gaandolo, *Transportation Law*, Second Edition. Wm. C. Brown Company Publishers, Dubuque, Iowa, 1973. Chapters 1-2 (pages 1-56). This is probably the best current, single volume text devoted to transportation law, including the issue of railroad abandonment, written strictly from a legal viewpoint.

D. Philip Locklin, *Economics of Transportation*, Seventh Edition. Richard D. Irwin, Inc., Homewood, IL 60430, 1972. Especially pages 595-599. This is probably the best text for explaining railroad regulation from an economic as opposed to strictly legal viewpoint.

Railroad abandonment is covered by the Interstate Commerce Act (Title 49.-Chapter 1, U.S. Code), Section 1, (18) through (22). The Act has been modified by the Railroad Revitalization and Regulatory Reform Act of 1976 (P. L. 94-210, 94th Congress, S. 2718), see Title VIII-Local Rail Service Continuation, especially Section 802-Discontinuance or abandonment.

Application for Federal Light Density Rail Line Subsidies

Second, the Handbook is not intended as a guide to applications for Federal financial assistance for the continuation of local rail service on light density lines. Currently there are two such Federal assistance programs. The first is provided under Section 402 of the Regional Rail Reorganization Act of 1973, as amended, and is limited to the seventeen states in the Northeast and Midwest which comprise the Region, as defined in the Act. This program ends in 1978. The second program is provided under Section 803 of the Railroad Revitalization and Regulatory Reform Act of 1976 (see Appendix 1). This program is nationwide and ends in 1981. Both programs are administered by the Federal Railroad Administration (FRA) of the U.S. Department of Transportation. Questions concerning these programs can be addressed to FRA's Office of State Rail Programs (400 7th Street, S.W., Washington, D.C. 20590) or to the rail planning division of the appropriate state transportation department (see Appendix 2). The FRA has published regulations for the administration of each of the two programs:

U.S. Department of Transportation, Federal Railroad Administration, "Assistance to States and Persons in the Northeast and Midwest Region for Local Rail Services Under Section 402 of the Regional Rail Reorganization Act of 1973: Procedures and Requirements Regarding Applications and Disbursements," *Federal Register*, Vol. 41, No. 45, pp. 9692-9699. Washington, D.C.: U.S. Government Printing Office, March 5, 1976.

For the regulations pertaining to light density rail line assistance, see:

U.S. Department of Transportation, Federal Railroad Administration, "Assistance to States Under Section 5 of the Department of Transportation Act," *Federal Register*, Vol. 41, No. 154, pp. 33354-33361. Washington, D.C.: U.S. Government Printing Office, August 9, 1976.

A Guide to Modal Shift

Third, the Handbook does not lead the user through a step-by-step procedure of evaluating and participating in a shift from the use of rail service to truck transport or a coordinated form of movement such as piggyback (trailer-on-flatcar). Many studies have been made on this subject and they should be investigated before investing heavily in a scheme to save rail service. Some of the better ones are listed below.

Charles River Associates, Inc., *Competition Between Rail and Truck in Inter-city Freight Transportation*, Prepared for The U.S. Department of Transportation, December 1969. Available from the National Technical Information Service, Springfield, Virginia 22161 (NTIS No. PB 193354).

Iowa Department of Transportation and Iowa State University of Science and Technology, *An Economic Analysis of Upgrading Rail Branch Lines: A Study of 71 Lines In Iowa*, Prepared for the U.S. Department of Transportation, Federal Railroad Administration, March 1976. Available from the National Technical Information Service, Springfield, Virginia 22161. NTIS No. PB 251978/AS).

Reebie Associates, *Freight Transportation, Future Modal Competitiveness*, Prepared for the U.S. Railway Association, February 1975. Available from the National Technical Information Service, Springfield, Virginia 22161 (NTIS No. PB 239219).

Sinat, Hellisen and Eichner, Inc., *Competition in the Railroad Industry*, Prepared for the U.S. Railway Association, February 1975.

Wilbur Smith and Associates, *Economic Study of Alternative Modes for Rail Traffic and Their Costs*, Prepared for the U.S. Railway Association, January 1975. Available from the National Technical Information Service, Springfield Virginia 22161 (NTIS No. PB 239032).

A textbook reference that deals with initiating a private truck operation is:

Kenneth U. Flood, *Traffic Management*, Third Edition, Wm. C. Brown Company, Publishers, Dubuque, Iowa, 1975. Especially Chapter 2.

The Economic Impact of Rail Abandonment

Fourth and last, this Handbook does not tell the reader how to evaluate the loss of rail service in an area and/or one or more communities located within that area. This, too, has been dealt with thoroughly and we would recommend the following publications for good bibliographies pertaining to the subject:

The Council of State Governments, *The Northeast and Midwest Rail Crisis: A Bibliography of Current Literature*, August 1975. Available from The Council of State Governments, Iron Works Pike, Lexington, Kentucky 40511. Price \$3.00.

U.S. Department of Transportation, *Railroad Abandonments And Alternatives: A Report on Effects Outside the Northeastern Region*, May 1976. Available from U.S. DOT, Office of Transportation Systems and Information (TPI-10), Washington, D.C. 20590.

The Essential Ingredient: Sincerity

If there is one message the authors of this Handbook want to convey to its readers, it is that they be sincere in their efforts to preserve rail service since such an effort more than likely will involve long hours of mental, perhaps phys-

ical, labor and, most assuredly, money. If the thought of initial cash requirements of \$50,000 to \$100,000 is scary, think carefully before going further. It is quite realistic to think in terms of such amounts if local interests decide to initiate an independent, local operation. Don't be misled. Running a railroad is an expensive, time-consuming operation. Local boosters absolutely *must* try to evaluate the *benefits* to be derived from continuing rail service versus the *cost* of keeping it. How much does the line mean to present users, future development, area employment and the like? Some local railroad managers said rail service meant very little and in view of our highway system capability was not worth preserving in some places.

The decision to preserve rail service must be a business decision based upon realistic economic facts, not iron horse nostalgia. If the local decision is positive, continue on, and again, good luck!

Content of the Handbook

The Handbook presents and evaluates two primary methods by which railroad service may be preserved. The first involves having the service continue to be operated by the present trunk line carrier and its management under some type of private or public subsidy arrangement. The second is to have the trunk line service replaced entirely by an independent rail company formed and supported by local interests.

Because of the cost of establishing an independent service and the questionable long-term benefits to be derived by a proliferation of local lines that have a doubtful future financially, continued service by the present carrier through a subsidy is probably the better of the two alternatives. This is merely a rule-of-thumb statement because each light density line that is to be preserved has its own peculiarities and circumstances and must be evaluated on its own merits. An independent takeover of trunk line mileage may be best in several instances.

Although the amount of space devoted in this Handbook to the two possibilities would seem to indicate a preference for the independent carrier, the authors of this Handbook do not necessarily favor the independent carrier alternative over subsidized trunk line service. In promoting continued trunk line operation, little need be written on the methods and problems of railroad

acquisition, rehabilitation, and operation. Because the concept of private and public subsidy to preserve a rail service is relatively new, there are only a limited number of examples to examine; however, this number is growing rapidly as the notion that railroads should not have to provide money-losing services gains acceptance.

The independent railroad operation material is designed for persons who are not closely acquainted with the railroad or transportation industry, but who have average business knowledge and a sincere interest in railroad preservation. We have included several outside references which readers may pursue as a means of accumulating expertise in different areas of railroad regulation, price setting and operations.

This type of expertise is particularly difficult to teach by the book. One learns primarily by doing in railroad operations. Talking with people in the field probably is the best learning device. It was found that such persons tend to be most helpful once they are convinced the visitor is serious, that the purpose of the visit is to learn about operations, and that they are not being visited by someone wanting to *tell them* how things should be done. The need for expertise in rail operations must not be underestimated. Initiating an independent company under neophyte management could mean financial disaster.

After the reader has studied this Handbook thoroughly *and* has made an initial evaluation of a particular light density rail line, the reader may have questions regarding independent takeover and operation not answered by this document or its reference materials. If such is the case, we recommend contacting The American Short Line Railroad Association, 2000 Massachusetts Avenue, Northwest, Washington, D.C. 20036 (telephone: 202-785-2250) for assistance. This association, established in 1910, is concerned with the welfare of some 200 member carriers that are independent of the country's large trunk line firms. It works for legislation that will aid these carriers and assists in resolving collective and individual carrier problems with government regulatory agencies. The organization is able but overworked in our opinion, so inquiries directed to it should be well thought-out and appropriate to local rail ownership and operation. It is recommended any new railroad join the association.

Organization of the Handbook

Following this introduction and orientation, the Handbook is divided into three parts. Part II deals with rail service preservation utilizing the trunk line presently providing the service along with some form of subsidy. Part III analyzes the independent railroad alternative. It is divided into three areas of particular interest. The first briefly covers the recognized advantages and disadvantages of local, small rail lines and warns the reader of the obstacles to success through independent operation. The second lists and evaluates the sources of revenue for independent carriers and the problems to be encountered when negotiating with trunk lines. The third is an introduction to and analysis of the many costs occasioned by a new local railroad, and the factors that affect those costs including acquisition, rehabilitation, operating and non-operating expenses. It includes a number of tables of cost *estimates* from which potential operators can gain an appreciation of what it should entail financially to run a line, given a certain amount of freight volume. Part IV covers the steps involved in implementing a decision to go ahead and organize and initiate an independent operation.

Part IV is followed by a series of ten appendices which are referred to throughout the text portion of the Handbook.

Information Sources and Procedures in Compiling the Handbook

By far, the most important source of information for the Handbook involved personal interviews with some 150 individuals closely associated with the light density railroad abandonment question. These interviews included 75 officials of 60 independent railroads, conducted in almost all instances on the rail site. Ten trunk line

officers were contacted together with 65 other individuals working on the problem. These included government officials, shippers, academicians, planners, and trade journal editors.

Where possible, opposing points of view were solicited regarding areas of controversy. For example, trunk lines were asked about the chances for success of operating an abandoned branch line. Independents, meanwhile, were queried on the advantages of local rail versus trunk line managerial policies and practices.

The second most valuable source was operational and financial data compiled from annual reports submitted by independent railroad companies to the U.S. Interstate Commerce Commission. This information is the basis for most of the cost estimates provided in Section 3 of Part III.

Finally, a number of documents were analyzed including government studies, trade journals, textbooks and the like. Many of these are mentioned in the Handbook; however, no attempt is made to include a definitive list of references dealing with the rail abandonment question. The Council of State Governments booklet mentioned in the second section of this part provides an excellent bibliography on the subject.

Funds for the travel involved by the researchers and their time and effort were provided by the U.S. Department of Transportation through its Program of University Research. While this agency financially supported the project, the authors below are solely responsible for the Handbook's content, conclusions, errors or omissions.

Edwin P. Patton
C. John Langley, Jr.
The University of Tennessee
Knoxville
January 1977

Part: II Alternatives for Preserving Existing Class I Light Density Rail Line Service

The reader of this Handbook can come up with the solution to the light density rail line problem as quickly as its authors: revenues generated by the line must increase, costs must decrease, or a combination of revenue/cost changes must occur to enable the railroad to serve the line profitably. The revenue-up, cost-down theme is a simple one, perhaps so basic that it can be overlooked by local interests trying to preserve rail service. Yet it represents the key to the solution and it will be referred to throughout the Handbook.

Part II of the Handbook explores procedures that have been suggested or developed by those interested in continuation of light density rail service by the carrier presently providing the service (as opposed to take-over by an independent company). This includes on-line shippers and local booster groups which will be referred to as the private interests or sector, and various governmental agencies on the local, state, and Federal levels, to be referred to as the public interests or sector.

In virtually all cases the parties involved in preserving the service were dealing with the large railroad companies, called trunk lines or Class I railroads, but presumably the programs described in this part of the Handbook could be employed in conjunction with any existing rail firm.

Further, the track to be abandoned in most cases is a branch line, a segment that connects a series of points with a main line, the connecting point being referred to as the interchange point. In recent cases, however, track that was previously main line track, or that which connected two main lines, has been put up for abandonment. The concepts developed in the Handbook apply equally to any track segment; in fact, for reasons to be discussed, a light density line with

more than one connection might be a good candidate for subsidy or independent operation.

In Part I, the Handbook's authors recommended that, all things equal, locally-initiated aid programs to preserve an existing trunk line service would be preferred to start-up of a new independent operation to serve the light density line in question. The major reasons for this preference deal with potential expenditures involved with independent operation and the problem of securing necessary expertise to manage it.

Nonetheless, local interests will want to examine both possibilities closely. Fortunately, this evaluation process basically is the same for both the subsidy and independent alternatives, at least in the early stages. In both cases local rail boosters must determine the revenue potential of a light density line *together with* the acquisition, rehabilitation and prospective operating costs of providing a service that will be patronized by local shippers. Local groups must convince on-line shippers, government funding agencies and the ICC, besides the owning trunk line itself, of the need to preserve a line that, in the opinion of the larger carrier at least, should be abandoned.

Trunk lines may try to convince individuals or groups who want to save a local line not to do so. The carriers probably are equipped with revenue and cost data for the line in question and one can be assured that the data presents a pessimistic appraisal of the line's future. The burden of proof will be on the local interests to counterbalance this evidence and/or convince trunk line management that it is in its best interests to work to preserve the line in some way. The developer of one of the most successful methods of retaining service, at least in the short-term, told the researchers that his biggest problem was getting the trunk line to believe he and his shipper's group were serious in wanting to

preserve rail service to their facilities and were willing to pay a reasonable amount of money to be assured continuation of such transportation service.

It is important that the local interests involved know why the line in question is up for abandonment or already has been embargoed or abandoned. The procedure for evaluating the potential of a branch line is contained in Part III. Although designed to enable estimates of the revenues and costs of turning a track into an independent operation, Part III's procedures can assist individuals in determining what would be necessary to make a line financially feasible under continued trunk line operation.

Organization of Part II

Efforts to retain existing services have centered mainly on either increasing revenues or decreasing costs. These programs have been carried out by (1) local shippers; (2) local shippers in conjunction with a governmental agency, either local, state, or Federal; and (3) a governmental agency independently.

In the following paragraphs, programs to increase revenues will be discussed, followed by suggestions to decrease the costs of light density rail operations. In each case, efforts of the private sector will be covered at the beginning, then potential public sector actions will be evaluated.

Finally, a program carried out in Iowa by private groups and apparently copied in part by the state, which involved costly line rehabilitation, will be described and analyzed. In this example, short-term expenditures were substantial in order to assure short and long-term revenue gains.

A review of this material may enable readers to think of additional methods to preserve service through modifications of current practices. This can be expected in what is a relatively new area of interest, for the effort to save rail service in many parts of the country has developed only in the last decade. Consequently, the preservation attempts are limited in number and the long-term pros and cons associated with each one have not been determined conclusively. New ideas for keeping the tracks in place on a profitable basis are of interest to state and Federal department of transportation planners, public service commissioners, the Interstate Commerce Commission,

and as listed previously, shipper and local booster groups, besides the trunk lines themselves.

Private Programs to Raise Revenues

Most private efforts to increase revenues generated by a light density line may involve a higher cost operation for on-line shippers, at least in the short-term. For example, the most basic solution is for shippers using a line to increase their use of it, probably at the expense of another means of transport, in all likelihood, truck transportation. As a rule, rail rates are lower than truck rates, yet motor transport is almost always faster than rail and may be more dependable.

The speed and reliability factors will tend to reduce the total cost of a shipper's supply and/or distribution system, offsetting the advantageous rail rates. Once accustomed to truck service, companies seem reluctant to leave it, yet, threat of truck rate increases once the railroad competitor has left scares many shippers, and they understandably argue for continued rail service as a means to combat this possibility. Higher truck rates, of course, would make rail more attractive.

Which shipper or shippers are willing to patronize a rail line sufficiently to prevent its abandonment may have to be determined soon for public policy is changing regarding the retention of rail service merely to keep truck rates reasonable. On-line shippers should evaluate carefully which in or outbound commodities could utilize rail service and, if necessary, be ready to plan adequately to resolve the problems of slow, sporadic rail service standards. The alternative is the cost of total dependence upon highway transportation.

The "Which Comes First" Argument

Shippers have good reason to complain about the deficiencies of once or twice-a-week rail service and unreliable pick up and delivery times. They have argued in recent years, sometimes seriously, sometimes as a ploy, that they will patronize more frequent, reliable service once it is provided. The railroads, on the other hand, say they have heard such promises before but when the service improvements were instituted, carloadings remained the same. Thus, a vicious circle ensues: which comes first, better service

which justifies increased business, or vice versa? Improved rail service evidently has increased business in some instances but not in others. A complicating factor is that some lines experiencing operating deficits or bankruptcy do not have the funds to improve service standards.

Because of the railroads' growing disenchantment with shipper promises, the Handbook recommends consideration of schemes whereby present shippers pay more for the use of rail service, at least in the short-term, to encourage its permanency. Examples of such schemes follow.

Higher Rates and Indemnification Payments

Both higher rates on traffic moving on and off the light density line and a supplemental payment per carload on a line's traffic have the effect of increasing trunk line carrier revenue on the track segment, provided volume remains the same as before implementation of the increases. Any new industry, on the other hand, considering the site as a potential plant location, understandably would look unfavorably on paying higher rail costs than presumably would be incurred by locating on a main line in the same approximate area. Even worse, existing on-line shippers might seek to relocate, providing even greater risk as to the line's long-run existence, further dampening enthusiasm for development of new industry.

As far as a choice between a higher rail rate, sometimes termed an arbitrary, versus a surcharge per carload, the latter probably is the easier to establish. Whenever rates are increased, a set procedure must be followed that requires at least two months and sometimes more than a year. It includes shipper/carrier negotiating, approval of rate association(s) (associations will be explained later), publishing and filing with a regulatory agency, and if controversial, possible litigation before the agency and in the courts. If a rate increase places an on-line shipper at an undue disadvantage marketwise relative to other shippers engaged in the same business, a long drawn out procedure can be predicted with no guarantee that the increase will pass. Meanwhile, carrier revenues remain the same and losses continue.

A less complicated procedure and one, evidently, with fewer regulatory and legal matters to resolve, involves the payment of a surcharge

by on-line shippers to the railroad for each carload originated or terminated on the line. The only time involved should be the negotiation period between shippers and carrier as to the amount of the surcharge and approval by the ICC, if the traffic involved is interstate. As previously warned, the most reasonable terms possible (for both parties) will be secured if on-line shippers know the revenue potential and cost situation of the line in question.

Probably the best working example of an arrangement of this type involves a 22-mile Penn Central (now Conrail) branch line in the Northeast that the carrier sought to abandon after a bridge washout in 1972. In response to the abandonment petition, on-line shippers, spearheaded by the line's best customer, formed an association to restore service by working with the bankrupt carrier. One of the most difficult tasks the association encountered was convincing Penn Central it was serious. Once this was accomplished, the two parties ground out an agreement whereby the association, in effect, indemnified the carrier against losses on the line by guaranteeing it a \$65 surcharge for each carload of freight moved over the line until volume reached such levels that the extra payment could be dropped. The surcharge was based on a ten percent return on investment on the scrap value of the branch line, given the yearly volume level existing at the time of the washout. If carload volume were to double from this level, the agreement would be torn up and the surcharge eliminated. Under the agreement, the line was to be rehabilitated over a period of years. Service standards would not be altered significantly, although an improved right-of-way would reduce derailments and improve the dependability factor.

The authors found that each party to the agreement seemed satisfied with it. Evidently negotiations were quite lively at times but each side admitted that a fair contract had been hammered out. Thorough preparation on the part of the association no doubt played an important part in the reasonableness of the agreement for its members. Unfortunately, through the Fall of 1975 traffic volume on the line had not increased significantly above pre-washout levels; thus, the surcharge remained. The leader of the association, however, remained confident the line had a bright future.

The Yearly Prepaid Supplement Plan

The prepaid supplement is a variation on the indemnification against loss theme. Mr. James R. Sullivan, Penn Central Vice-President, at a symposium on light density rail operations sponsored by the U.S. Department of Transportation on January 10-11, 1973, described the plan as follows:

The prepaid revenue supplement, an advance payment by a group of railroad users to the railroad supplying them with service has been suggested as a means of shipper subsidy. This supplement is calculated to cover the expected deficit for continued operation for a certain future period, usually one year. It reduces the risk to the carrier of further operating losses due to continued operation and concurrently encourages the shippers to increase their freight movements by railroad. The concept of the prepaid revenue supplement is perhaps best explained in the following steps:

- a. One or more shippers deposit with the operating carrier an advance cash payment equal to the prior year's operating deficit on the line;
- b. On this advance supplementary payment basis, the carrier provides service for traffic up to the level of the prior year;
- c. If traffic increases above the prior year's level, refunds are made on additional cars up to the carrier's break-even point (including an adequate return of investment) which brings refund of the entire deposit;
- d. At year's end, actual deficit is computed and final adjustments made; and
- e. If the year's operation produced a deficit, the required prepaid revenue supplement for the succeeding year is the amount of deficit.

This approach enables a group of rail users to preserve service for an interim period and provides the incentive to railroad users to increase their traffic on the lines in question.

Economic Development of the Area

Increased shipper utilization of a light density line has been recommended as an obvious means of increasing carrier revenues. Related to this premise, the expansion of existing sites and the locating of new plants that require rail service on light density lines will increase revenues, perhaps sufficiently to enable a profit for the carrier without employing indemnification/surcharge programs. Such development, in all likelihood, will involve the participation and sacrifice of both local shippers and booster groups, for the problems of sporadic service and risk of loss of the line altogether will temper enthusiasm for new development alongside it. The trunk line, meanwhile, may be trying to lure the prospective new plant to its main line nearby at the expense of the branch line. Local promoters, however,

have been known to be most original, aggressive, and skillful in efforts to attract new industry, especially where they can offer tax incentives and a large pool of relatively low-cost labor. These advantages, plus the availability of rail service, may overshadow the shortcomings of that service.

Federal and State Subsidy Programs

The Railroad Revitalization and Regulatory Reform Act of 1976 provides \$360 million over a five year period to aid local light density railroad service. Several prerequisites must be met by the states before these funds can be made available to them. Lines funded are supported on a 100 percent Federal basis the first year, 90 percent the second year, and decreases to 70 percent Federal support through June 30, 1981, when presumably, Federal aid stops altogether. The applicable provisions of the 1976 legislation are reproduced in Appendix 1. Local groups interested in obtaining such aid should work with their local and state transportation officials in the development of the state rail plans which are the basis for the selection of light density rail lines to receive Federal assistance.

The Handbook's authors agree with U.S. Department of Transportation (DOT) officials that direct Federal assistance to unprofitable rail lines should be primarily an interim device to lessen the burden of economic dislocation before ultimate line abandonment. If it can aid in redevelopment of a facility on a profit-making basis, then the aid also is justified; but it is anticipated that the former purpose is the more realistic one. It is argued that in the long-term, a light density line must become self-supporting through the efforts of the private sector. The DOT summarizes the subsidy's long and short-term effects as follows:

An operating subsidy program . . . to preserve these unprofitable services for five years will not provide a solution to the problem and stabilization of service for the long run. It is likely to be a continuing cost to the public sector without solving the underlying problems associated with light density lines. Thus, although an operating subsidy program can provide transitional continuation of uneconomic rail services, alternatives are needed which can provide long term solutions to the transportation problems of currently unprofitable light density railroad lines.¹

¹ United States Department of Transportation. *Railroad Abandonment and Alternatives: A Report on Effects Outside the Northeastern Region*. Washington, D.C., May 1976, P. 77.

Potential Cost Saving Programs by the Private Sector

The private sector refers to both on-line shippers and the trunk line currently operating a light density rail line. Both parties have certain options that can reduce costs but some of them can be considered effective in preserving rail service in the short run only. Most appealing are programs that on-line shippers and/or other local groups can initiate, although, as in the case of raising revenues, the reducing of costs for the carrier is transferred to cost increases for the rail user or other interested local parties.

Possible cost reductions available to the railroad include decreased expenditures on maintenance-of-way, reduced service levels (for example, four to two days per week service), and reduced number of crew members operating the train. The problem for local groups on many money-losing lines is that these options may have been utilized already by the trunk carrier.

The U.S. Department of Transportation report of May 1976, referred to in the previous section, dealt with each of these areas of carrier cost reduction. The report stresses the short-term aspect of reduced maintenance-of-way expenditures as follows:

Curtailment of maintenance-of-way can be economically advantageous in the short run. Many railroads do in fact cut costs this way, even though such deferment must later be compensated for by increased maintenance-of-way or rehabilitation expenditures. Failure to compensate for deferred maintenance causes long term erosion of the investment in facilities and decline in their operational integrity. With marginal carriers, deferred maintenance followed by inadequate compensating maintenance or rehabilitation has led to increased operating expenses which further reduced the viability of both the line and the railroad company. Numerous examples of this downward spiral in the physical and financial condition of many light density lines in the Northeast have been pointed out in reorganization proceedings.

Since curtailment of maintenance decreases operational efficiencies and increases rehabilitation costs, it is reasonable only if service is to be downgraded or terminated or if substantial rehabilitation funds will later become available. Many unprofitable light density lines have already reached a state of such rehabilitation need that further maintenance deferment would result in higher operating costs, more accidents and the eventual operational demise of such lines.²

A 1975 study by the Council of State Governments, and reported in the document quoted above, indicated that a reduction of nearly eight percent of branch line costs could be realized by decreasing service frequency by one day per week.³ Reduction of one crew member, based on a sample of 18 light density lines in Indiana, also would provide an estimated eight percent decrease in branch line costs.⁴ These figures were determined, however, assuming that present service levels were better than once-weekly, and that the number of crew members presently assigned the branch line train was four or more.

If present and prospective shippers are willing to patronize weekly service to the same degree as multi-day service, then a schedule reduction may be in order if it will mean continued operation of a light density track. If service already has shrunk to a weekly standard, apparently no savings are possible by reduced frequency since less-than-weekly service is considered generally unsatisfactory from the viewpoint of the rail user.

Crew reduction will involve negotiations between the carriers and the unions, debates which the railroads almost always lose. It is doubtful a carrier would risk the ire of its organized employees over an insignificant light density line. However, in states where full crew laws have been repealed, labor savings might be possible. Local interests at least should discuss the matter with the trunk line.

To sum up, the authors feel that the possibilities to reduce costs by the operating carrier are unrealistic to non-existent. Promoting track deterioration, reduced service standards, and/or expecting union cooperation in reducing manning requirements are not the proper methods or policies prerequisite to operating a rail line on a sound, long-run basis.

Cost cutting possibilities carried out by on-line shippers have a better potential for preserving rail service. The most promising idea is to have local groups assume responsibility for some or all of maintenance-of-way costs. This could be accomplished by the railroads doing the work and billing one or more local organizations, or the local interests physically doing the work

² *Railroad Abandonment and Alternatives*, pages 78 and 81.

³ *Ibid.*, page 82.

⁴ *Ibid.*, page 81.

themselves. The problem with the latter scheme is potential displacement of union labor.

A related procedure would be to have a shipper group purchase the line entirely and then rent or lease it to the trunk line or pay the large carrier an operating fee to provide a certain level of service. Local owners then would be responsible for maintaining the line, which they could do themselves or contract out to the railroad. The shippers would pay the taxes levied against it by the state. In each case, the railroad's cost will decrease while users or some local party's cost will increase. Continued rail service, however, on a sound financial footing for the foreseeable future may be realizable only under such programs.

Potential Cost Saving Programs by the Public Sector

The public sector is where many feel the direction, leadership and financial backing must come from for any long run solution to the light density branch line problem. Under Title 8 Section 803 Subsection (j) of the Railroad Revitalization and Regulatory Reform Act of 1976, reproduced in Appendix 1, each state is required to develop a state rail plan to be eligible for rail service financial assistance from the Secretary of Transportation. This assistance promises to give the public sector a large part in determining the final outcome of many money losing light density rail lines. Meanwhile, several concepts already have been introduced to aid local areas in retaining their service. While many are unproven to date, they offer potentially viable options for retaining private operation of many light density lines.

The public sector has one of the most powerful tools available to it in the form of tax relief. According to the *Yearbook of Railroad Facts*, 1976 Edition (published by the Association of American Railroads), the railroads paid a total of \$474 million in taxes to state, county and municipal governments in 1974. A lowering or elimination of certain taxes, particularly property taxes, on light density lines in all likelihood will not produce profits but should reduce costs noticeably.

Property taxes on a per mile basis differ widely among the states (see Part III). The 1976 Rail Revitalization Act, mentioned earlier, is designed

to end many of the traditional state taxing policies that have discriminated against the railroads for many decades. If a state or local government agency is interested in continued service only to collect burdensome tax revenues, it is recommended programs to preserve the service be terminated.

Besides tax relief, some states have embarked on programs of purchasing rights-of-way, then leasing them to private companies to operate and/or maintain, depending on the situation. The state of Vermont, rather than lose service over the failing Rutland Railroad, purchased over 180 miles of the line and leased two portions of the track to private, fully-regulated rail companies, for 40 years (renewable ten-year periods). The railroads pay the equivalent of a rental fee each year, are taxed on a sliding percentage scale proportionate to gross operating revenues generated, and are responsible for quality and cost of maintenance of way and structures.

A similar program could be set up where a state, county, city or town government purchased a line and arranged with the former trunk line owner to operate it. In the Vermont example, the two private companies wanted to operate the properties and agreed to the rental payments, taxes, and the maintenance responsibility. In other areas, where the trunk line did not want to provide service even after government purchase of the track, arrangements could be made to reduce or eliminate the rents, taxes, and maintenance costs. As in the private sector example of right-of-way takeover, the government could assume the maintenance and perhaps pay the trunk line to continue service. The major advantage of government, versus private, assumption of the roadbed ownership would be the elimination of property taxes.

The amount paid by each party, trunk line and government agency will depend on the bargaining which takes place. As has been stressed previously, the agency, especially if on the county or city level, must be prepared with a realistic appraisal of a line's potential. The trunk line *will be* prepared, and will be financially realistic in working out the arrangements. The carriers no longer can afford to enter into money-losing ventures and they do not intend to do so. Now that public policy is beginning to agree that forcing the railroads to continue red ink opera-

tions is a mistake, the roads will be more profit conscious than ever during the negotiations.

Various government agencies also may be able to assist in the financial arrangements of preserving a rail line through the issuance of debt, use of general tax revenues and special assessments, regional authorities, and other means. Eight forms of public financing for such a purpose, together with potential government aid in private financing efforts, are discussed by the Interstate Commerce Commission in Appendix 3.

Private and Joint Public/Private Efforts to Rehabilitate Track

Two similar programs, one initiated by shippers only, the other by the state in conjunction with the private sector, have resulted in the rebuilding of close to 100 miles of relatively light density trunk line track in Iowa. Through December 1975, an additional 650 miles were either in the process of being upgraded, or arrangements had been completed for this work, and negotiations were underway for rehabilitating even more of the Hawkeye State's deteriorated lines.

The private effort began in the early 1970's when farmers whose grain elevators were located on certain branch lines found they could not sell their products as lucratively in the marketplace as farmers using elevators on main lines. This was because the branch lines physically could not handle the new "jumbo" grain hopper cars that had been introduced *nor* was carrier service as frequent or reliable as on the main lines.

One group of shippers, who recently had completed a major elevator facility only to find themselves at a disadvantage because of their branch line's deficiencies, approached the serving trunk line and after serious negotiations, arranged to have the carrier rehabilitate the line virtually to main line standards. The work has been completed, service frequency increased, and the on-line elevators now are competitive with facilities located on main lines.

Under the agreement entered into by the railroad and the farmers' cooperatives, the farmers raised the money to rebuild the right-of-way and loaned it to the railroad free of interest. In return, the railroad credits the cooperatives for every carload of freight originated or terminated on the line. These credits range from \$10 to \$50,

averaging out to \$40 per carload. They are based on the revenue received by the carrier for each carload handled. At the end of each year, the cooperatives receive a check for the total of the year's accumulated credits. This refund is the way the loan is repaid. The loan period was established as ten years, but the elevator manager who spearheaded the agreement, when interviewed, said it appeared the payback period would be eight years as his cooperative had shipped more than anticipated since rehabilitation had been completed.

Since car supply also had been a problem for both the carrier and the cooperatives, several shippers leased new hopper cars to alleviate the condition. As long as the cars were in use continually, the manager felt satisfied the cars paid for themselves, in other words, the use payments by the railroads met the lease payments made by the shippers to the leasing company.

Thus, through the initiative of shippers who knew the value of reliable railroad service, both shipper and railroad benefited. The railroad rebuilt its property and sustained substantial gains in revenue traffic. The shippers, meanwhile, became competitive in the marketplace for grain without having to move their facility to a main line at great expense.

The elevator manager called the arrangement a partnership between his company and the carrier. He summed up the arrangement as follows:

We couldn't do without efficient rail service. There was no way we could assemble enough trucks, nor could the highways take the heavy loads. Rails were just too important to lose!

We'll get our money back; we'll have the use of the rails; we can stay current on our contracts; and we can bid higher prices to our patrons. The railroad benefits from rejuvenated track and business. We all come out ahead.

The railroad also seemed pleased with the agreement. An official interviewed about the programs warned, however, that his company entered into it only because it had profit potential, a sufficient payoff in return for utilization of the carrier's personnel and equipment.

It was obvious from talking with both parties that, from the start, each was ready to negotiate seriously and knowledgeably. As a result each side probably had to give and take, and the agreement produced was reasonable, with both railroad and shipper benefiting. Local interests

pondering such schemes again are cautioned to be prepared adequately when dealing with the railroads.

Iowa Initiates a Similar Program

The Soviet Union grain purchase in 1973 appeared to promise Midwest farmers, especially those in Iowa, a record year for sales and profits. When it came time to move the commodity to port loading locations, however, serious transport problems were found to exist in Iowa's rail network. The worst deficiency was that several thousand miles of light density lines were unable to accommodate the "jumbo" hopper cars which represented the most profitable method to transport the commodity. Some deteriorated lines seemed unfit to handle trains of almost any size or length.

In response to what appeared to loom as a transport crisis for the state's rural economy, Iowa passed a rail assistance program in 1974 that is being scrutinized closely by several Midwest states and a large group of government agencies as perhaps a most productive method of rehabilitating deteriorated rail lines that still are needed in the interest of the public.

Under the program, all light density lines in the state, whether branch or main line, are evaluated according to their need by on-line shippers, usually farm cooperatives. The lines are analyzed according to past and future potential traffic volumes, condition of the track and past derailment record, and potential contribution by shippers and railroad to rebuild the track. The shipper/railroad participation in the rehabilitation cost is the unique part of the program.

The lines with the best potential qualify highest for the funds made available by the state, originally \$3 million, but now double that figure. The amount allocated them is matched by on-line shippers and the trunk carrier owning the line to produce the total needed to rebuild the track.

Conceptually, each party contributes one-third of the cost but actual agreements have varied according to the financial ability of the parties, especially the railroads. In one case the railroad contributed nothing because it was bankrupt.

The program resembles the private sector project described earlier in that the funds made available to the railroad are treated as a loan. The railroad does the rehabilitation work but

under this program also puts up part of the funds. The money loaned to the carrier is paid back through the issuance of refunds, depending on whether the loan originated with the shipper or the state. On shipper traffic, a refund is made on every carload moved over the line, during and after rebuilding work. Once the rehabilitation has been completed, refunds also are made to the state *on any new traffic handled*; that is, volume *above* that moved prior to rebuilding.

Of over 4,400 branch line miles of track in Iowa, 15 lines had been selected for upgrading by the end of 1975. Three lines had been completed totaling 62 miles, seven were underway totaling 646 miles, and five were in the negotiation stages involving the state, the shippers, and the railroads.

In interviews with Iowa government officials (including Governor Robert Ray), shippers located on the lines rebuilt or in the process of rebuilding, and the participating railroads, it was obvious that each party to the negotiations had been prepared to bargain seriously to preserve rail service. The railroads again stressed their refusal to enter into agreements that did not promise to be profitable. Although some shippers were concerned about possible political branch line selections for aid instead of economic choices, almost everyone contacted felt the program was working well and was a possible model for other states and perhaps the Federal government's assistance efforts.

An excellent reference that describes and evaluates the Iowa program is:

Railroad Rehabilitation: A Program to Upgrade Selected Branch Lines in Iowa, The Council of State Governments, Lexington, Kentucky, January 1976, Price \$3.00

The publication lists the advantages of the Iowa program:

1. Better, faster service—including most positive attitudes by railroad train crews. On one branch line, scheduled service was not provided 40 percent of the time before it was upgraded. After upgrading, schedules have been met.
2. Another branch line experienced 11 derailments during the six months prior to rehabilitation, but none after rehabilitation which, of course, means cars are getting to and from grain elevators much quicker.
3. Greater control by farmers over distribution of their grain through relationship with local grain elevators. If branch lines become unusable and undependable, local farmers must ship their grain by truck to larger elevator companies on main lines since there is no reason to transport

it to the local elevator company who would in turn transport it by truck to the main line.

4. Rebuilt branch lines permit better equipment utilization such as allowing shippers to use 263,000 pound jumbo grain hoppers, thus permitting economies of scale.
5. It was reported that transporting corn and soybeans by truck instead of rail adds 4 to 10 cents per bushel (and up to 15 cents in several areas) to the price, depending on marketing conditions. One grain elevator operator (servicing a 135,000 acre area) estimated that an upgraded branch line costing \$600,000 would save over \$800,000 in transportation costs over a two-year period. Fertilizer transportation costs also are significantly less by rail.
6. Some elevator operators believe that truck rates have been kept down by branch line upgradings, but there is no solid evidence that this has occurred.

A final advantage is that no single group or interest must bear the entire financial burden of

line rehabilitation. Risk and potential rewards are divided among those who stand to gain or lose according to patronage of each rebuilt rail line.

A Variety of Ideas from Which to Choose

This part of the Handbook has presented a variety of schemes for retaining trunk line operation of light density rail lines. Local interests, when evaluating any of them, must remember two things: select an alternative that will benefit *all* parties involved, and be well prepared when initiating actions to implement the course chosen. Some discussion of the implementation procedure is included in Part IV of the Handbook.

Part III: The Independent Railroad Alternative

The Success Potential of an Independent Railroad Operation

If continuation of essential railroad service by the current trunk line carrier is not feasible, local interests may want to investigate the possibility of taking over the rail line in question and initiating a separate independent operation to provide the desired service. This alternative has received much attention in the 1970's and several independent operations have been initiated in the last few years. Part III of the Handbook is designed to orient local interests in detail with what is involved when establishing and operating a relatively small, by trunk line standards, railroad.

Before going further, it should be stressed that involvement in such a project may entail greater financial sacrifice than the methods discussed in Part II to retain trunk line service. Therefore, a realistic appraisal of available funding, with prospective profits or losses, is an absolute necessity before committing large sums of money to independent operation. Although some of the recently-created lines continue to exist, readers should be aware that a number of independents have suspended operations or gone out of business altogether. (Operations are not always profitable and the capital invested would earn a better return in other financial opportunities.)

Dealing With Money-Losers

It must be remembered that a truck carrier downgrades or attempts to abandon service altogether most frequently on lines it no longer considers profitable even under its lowest cost operating conditions. If the line is marginal or the losses small, abandonment in all likelihood will not be permitted by the regulatory authority, usually the Interstate Commerce Commission (ICC). Thus, the line in question has been written off by the trunk line and the regulatory authorities as a money-loser now and for the

foreseeable future. An obvious question then is why the current interest in beginning independent operations over ex-trunk line rights-of-way?

The answer usually involves one or more of the following: (1) local interests, after a benefit/cost analysis of the type recommended earlier in the Handbook, feel the benefits of continued rail service outweigh the potential losses if the service is abandoned; (2) the trunk line carrier has not evaluated realistically the future potential of the line; and (3) a lower cost operation can be achieved under local independent management than under trunk line management. The fact that several ex-trunk line segments now exist as independents shows that one or more of these reasons have proven to be valid. On the other hand, the failures of some companies tend to support the contentions of the trunk line involved and the miscalculations of the independents. This Handbook is designed to minimize or prevent such miscalculations.

Finally, some independent operations have been initiated by "railbuffs." These individuals at times are willing to forego a reasonable return on their labor or investment in exchange for operating a railroad of their own. While a local area may benefit from the financial sacrifice of such individuals, the Handbook does not recommend reliance upon such operators without close scrutiny of their long-run intentions and financial backing.

The Causes for Optimism

In the last analysis, only two things are needed to preserve a current light density rail line: revenues generated by it need to go up and/or costs of operating it need to go down sufficiently to make money. Those who support the concept of transferring lightly-used trunk line trackage to local management feel both objectives can be met under such supervision.

First, trunk lines for many years have been criticized for overlooking potential revenue op-

portunities and/or giving up sources of business prematurely. Examples of the latter include less-than-carload freight and, perhaps, the transportation of people. The same argument has been used relative to light density rail lines; that the large carriers have given up on them rather than aggressively promoting the lines to retain and develop new business for them. The argument concludes that local "on the scene" management provides the needed aggressiveness and cooperative spirit to increase business from existing on-line sources while attracting new customers.

Real world experience, as reflected by the researchers' interviews, reveals that aggressive local rail managements, on occasion, have convinced shippers to locate along their properties rather than on trunk line industrial sites. On the other hand, these managers told us of the inherent difficulty in convincing potential users of the financial soundness and reliability of the smaller carrier versus the larger one. The burden of proof definitely lies with small carrier management to prove its advantage over the trunk line. As to increasing business from firms already located on a rail line, the interviewees were more discouraging than encouraging. Their theme definitely was one of preserving current business, as opposed to attracting new traffic—including the winning back of old business lost to trucks.

Independent rail line optimists also point to possible cost savings achievable with independently-operated short haul railroads. Much of the savings revolve around the possibility of using non-union labor on a locally-operated line, an option that may not be available in many parts of the country. The other area of potential cost reduction is effective local supervision, referred to as "on the ground" management. *Maximum* savings due to utilization of non-union labor and local management is thirty percent below trunk line costs for providing an equivalent service, according to several managers interviewed (25 percent labor savings, 5 percent through local management).

At first glance, therefore, a potential increase in revenues, together with a reduction in operating costs up to thirty percent, may provide encouragement to preserve many lines currently slated for abandonment. There are three difficulties, however; first, revenue increases cannot

be assured; second, cost reductions may be difficult to realize due to the need to rehabilitate former trunk line track; third, it will be necessary to hire qualified managerial expertise. These problems will be covered in reverse order.

The Expertise Problem

Without effective management, almost any enterprise is doomed to failure, including a railroad. One of the most important questions to be answered by a potential independent rail line is where to find capable management. A second consideration is compensating this individual or these individuals adequately. The manager of a small line must be innovative and flexible, besides knowing or being able to learn quickly about every aspect of the railroad business—pricing and rates, train operations, maintenance of track and equipment—and must know how to deal with owners, shippers, employees, and probably local government officials. This requires a special breed of individual, one hard to locate and one probably reluctant to join a new railroad for a minimal salary combined with a potentially high risk of failure of the railroad.

One-third of some sixty small railroad managers felt that independent carriers should train their own future managers, an impossibility for new lines. Second choice involved hiring present trunk line managers but several individuals ruled out this source as totally unacceptable. Many trunk line people, because of the size of these companies and the consequent need for managerial specialization, would be too specialized in their training to handle the varied problems encountered in running a small line. Another problem with trunk line personnel would be getting them to give up a relatively secure job for a risky one, at perhaps a lower salary.

Several successful small line managers, however, have come from trunk lines. They came with experience in one phase of railroading, such as rebuilding/maintenance of track, or train operations, yet were sufficiently versatile to adapt to the many-faceted requirements of local railroad management. Not a single former-trunk line manager interviewed wanted to return to the large carrier, nor regretted his move. The variety of the job, if more demanding than previously, was also more challenging and rewarding. One suggestion was that new small carriers look

for former-trunk line managers of branch lines, as opposed to general office or headquarter personnel. Operation of branch lines often required the varied talents needed by small lines.

The interviews convinced us that one source to beware of was professional management firms, with little or no railroading experience, that will offer to set up and operate a line for a percentage of the profits and/or a healthy management fee. This does not refer to railroad specialists and consultants, but rather to relative newcomers to the railroad field who see potential profit in it. This is not to say that such firms are not capable or trustworthy; it is merely to advise that local interests check out thoroughly a potential consultant's "track record" (no pun intended) before committing themselves to an expensive contract.

In summary, good management is essential to the success of the small independent railroad.

The Rehabilitation Problem

Trunk lines usually spend an absolute minimum amount of money on light density lines they wish to abandon, a practice referred to as deferred maintenance. The longer this policy has been in effect, the greater the cost will be to bring the railroad up to acceptable standards for small line operation. Carriers that overlook the need for safe, adequate track may have a short life span, for the losses from a single derailment can put a railroad out of business. The cost of rehabilitation will have to be absorbed in some way, most likely spread over a number of years of operation. Consequently, it will tend to affect adversely the thirty percent cost saving figure.

The Financial Base Requirement

Local "on the ground" management and the possibility of flexibility in labor requirements are acknowledged advantages of independent small railroading. The primary disadvantage is the financial requirement and the difficulty many roads have in meeting it. Undercapitalized railroads have been known to cease operations after a single costly accident such as a derailment or highway grade crossing collision, or a natural occurrence such as a bad winter or a flood. One local manager stressed that any new carrier should work to build up a cash reserve of 100 percent of the line's assets in as short a time as possible. He quoted a loss to his company of

\$35,000 as a result of a single bridge washout. Many carriers could not survive just one such misfortune.

In raising capital, a new small line may not have the variety of sources to choose from as will a medium to large established business firm. This predicament can be alleviated if the backer of a new rail line is a large shipper or group of shippers with strong financial capabilities. Many successful small carriers are subsidiaries of large non-transport-oriented corporations. In most cases, these lines are profitable, self-supporting firms. At least one factor for their success is the availability of funding at reasonable interest rates when required by the subsidiary. Advantages and disadvantages of industry-owned lines *versus* ownership independent of shippers served are discussed in detail in the last section of this part and again in Part IV.

A factor tending to complicate new small line funding is a law, completely peculiar to the railroad industry, concerning bankruptcy. Should a company fail, and yet its operation be declared to be required by the public interest, a regulatory agency may force it to continue to provide service, at a loss, until reorganization is achieved under regulatory auspices or its services are ruled to be no longer required. During such operations the carrier's assets are eroded and its owners and creditors suffer losses. The law's effect is to make borrowing difficult for the industry, regardless of the financial standing of the company involved.

The final financial factor that can affect adversely the small railroad involves diseconomies of scale in purchasing. Because of their size and consequent requirements, trunk lines can take advantage of discounts offered through volume buying of new equipment or supplies. Small carriers inherently cannot utilize such price offerings. By working closely with the builder, supplier, or connecting trunk line, the small carrier may be able to participate in an "add on" purchase, for example, a five car order may be added to an order for 100 cars, and thereby result in a lower price per car. This buying technique, however, cannot be guaranteed.

The Need to be Realistic

The second and third sections of this part of the Handbook look closely at revenue sources

and the costs of creating and operating a small railroad. Although not listed as a problem, Handbook readers must be aware that there is a great need to be completely objective when considering the local railroad alternative. While several managers interviewed agreed with the stated advantages of the small carrier, they also warned that the local takeover concept is *not* a panacea for the light density rail line problem. While a new company, operating over ex-trunk line track, may succeed under a particular set of circumstances, there is no single formula for success. Each potential new operation must be evaluated thoroughly on its own merits. This conclusion is supported by government-sponsored research into the rail abandonment problem as indicated by several references listed at the end of the section in which the issue of costs is discussed.

Determining the Revenue Potential of Local Rail Lines

Importance of Revenues

The goal of this section of the Handbook is to indicate in some detail the methods by which local rail lines can generate revenue. In response to the question—What is the most important factor in determining the success of a local line?—virtually all local rail managers interviewed by the authors answered “revenues”!

Furthermore, they warned against relying on: (1) one basic commodity and/or, (2) seasonal items such as agricultural products to support a line. Unfortunately, many small carriers are dependent on one product that is shipped only at certain times of the year, and consequently are vulnerable if the market for the product declines, or worse, if shippers find a better way to move the commodity. The recent failure of a local line that took over a stretch of trunk line track was in large part due to dependence upon one primary commodity, grain.

Finally, the managers warned against relying on promises and optimistic traffic projections made by shippers and local booster types, based on the assumption that the railroad will improve its service standards. Local rail management must live with what it has and not with promises. Clear cut agreement between a shipper and a railroad for increased business in return for better service is different from a boast that “this

area just can't help but grow if it just has better railroad service.”

Types of Revenues

Revenues primarily are divided into two categories: operating and non-operating. The former category includes all monies received from moving freight cars on, to and off the local rail line. Most, if not all, of these moves will be in conjunction with one or more connecting trunk lines or, possibly, other local lines. Movements between points on just the local line itself also may be involved. Since it is assumed that the primary purpose in setting up a new small railroad will be to provide freight train service, the discussions, except those which follow immediately, will deal primarily with operating revenues.

Nonoperating revenues, however, can be important to a rail line. Development of property adjoining the railroad can be a source of freight revenues if industries are attracted to the sites, and of nonoperating income regardless of use if developed successfully. Many small lines are involved in the real estate and land developing business as well as the railroad business.

Some carriers have profited by providing light repair services for trunk lines, others by building connections between shipper plant sites and the serving carrier (called spurs or sidings) at times when the serving carrier was not even the small line itself! Another local line, which inherited several miles of excess track, makes money storing cars that are temporarily out of service. Many opportunities may exist for nonoperating revenues. How important they will be, of course, depends on each carrier's own situation.

Per Diem. A major service advantage of rail-rail transportation is the ability to move a freight car of any one railroad over the lines of other carriers. This means lading does not have to be unloaded and reloaded every time a shipment moves from one railroad to another. However, with the cars of one railroad moving over the lines of other railroads and being used in revenue service by those lines, the question arises as to how the borrowing railroad should reimburse the carrier that actually owns the cars. The answer is the *Per Diem* charge, a payment that is owed the owning railroad for each day a car is used or is on the property of a borrowing railroad.

Per Diem charges are based on a day's depreciation cost of each car used, and on the length of haul on borrowing roads. The dollar magnitude of these costs also depends upon the type and age of the car. Because their existence represents industry's efforts to use more effectively freight car fleets, and due to the fact that they may result in significant costs to railroads not owning cars, the issue of Per Diem payments will be discussed in greater detail in the section relating to costs.

There are, however, some small railroads which do own freight cars and these cars become a source of revenue each day they are in the possession of another carrier. A few carriers actually profit from car ownership by receiving more from borrower lines than they pay for the use of foreign cars on their property. Although a relatively rare profit source for local lines, the managers of these firms are enthusiastic about making money through car ownership.

Demurrage. A final source of revenue is demurrage, a penalty payment placed on shippers by a carrier when the shipper holds a car beyond a stated time period (usually 48 hours after delivery or "spotting" of the car by the carrier) for loading or unloading. Since it is in the nature of a penalty, the carrier sometimes is reluctant to charge its customers for it, though it is legally necessary to do so. The demurrage charge is not large and carriers do not profit from it. They would much prefer to have the car promptly unloaded, for in all likelihood they owe a higher Per Diem charge to the railroad that owns the car than they will collect in demurrage from their customer. New lines and their shippers should work closely with each other to minimize if not eliminate demurrage payments.

Two Types of Operating Revenues: Divisions and Switch Payments. There are two primary means by which local rail lines are compensated for hauling freight. Each has its advantages and disadvantages. The first, and most popular by far among the many small line managers interviewed, is a percentage of the total revenue generated by each carload of freight. The percentage is referred to in the railroad business as a division. For example, if total revenue on a carload is \$600 and the small carrier gets a 20 percent division, its revenue on the shipment would be \$120.

The basis for divisions varies widely. They may be based on total revenues from origin to ultimate destination or based on the revenue received for only part of the movement. Sometimes the small carrier's portion is a percent of the amount received by the carrier with which it connects only. In the above example, let's assume that the \$600 carload shipment moves over two trunk line railroads, ABC and XYZ, and each received half the revenue, or \$300. The local small railroad originated the car on its line and gave it to the ABC Company. Its division, if 25 percent of the ABC railroad's revenue on the movement, is \$75. Obviously, the higher the division and the revenue per carload, the more money per car received by the small railroad.

Much more will be said about divisions in the material dealing with estimating a new local carrier's revenues. Two things, however, need to be mentioned at this point. First, divisions to be received by a new small line are negotiated by that line and the connecting trunk line. Second, whereas the large carriers used to be fairly lenient in granting divisions, in recent years they have toughened up and some newer companies have not survived under the divisions negotiated between the two parties.

The second form of revenue payment is a straight switching charge paid by the trunk line to the local carrier for each car delivered or picked up by the local line and interchanged with the trunk line. This payment too is negotiated between trunk line and local management, and according to most managers, is insufficient for a small line to survive. Estimates as to a profitable switch payment varied from \$50 to \$100 per carload according to total volume of cars handled (the more cars, the lower the payment could be), but most interviewees felt a trunk line wouldn't go above \$50 or \$60 per car. Thus, a carrier with strictly a switching payment basis and low volume would be in trouble.

Pros and Cons of the Operating Revenue Types. The primary advantage of divisions, at least the ones granted during the years the trunk lines were generous, is that they generate more revenue than the switch payment. A second advantage is that they increase automatically when rate increases are granted the trunk lines. Since the rate determines carload revenues and the division is based on that revenue, the small carrier's

amount increases when the carload revenue increases. The disadvantage is that the local line, in order to participate in divisions, must be subject to strict government regulation virtually identical to that covering trunk lines. The nature of this control is covered shortly.

Some managers do not consider this a disadvantage, while others argue the regulation stifles carrier initiative and is excessively expensive for a small line relative to the trunk carrier. As part of this regulation, a carrier must have on hand one or more people who must be conversant with rates, rate-setting and rate changing procedures, a complicated field known as traffic management. Like regulation, however, some managers feel this is the price a carrier pays for being able to participate in the railroad rate-setting process, the results of which directly affect the future well-being of the local railroad.

Switch payments also have disadvantages and advantages. Switching revenues may not be sufficient to enable a profit. Also, except for a few trunk line-small line negotiated agreements, such payments do not increase automatically when trunk line rates are increased. (On the other hand, they do not decrease if a trunk line wants to and succeeds in cutting rates on certain traffic.) The advantage of such reimbursement is that the small line does not have to possess extensive expertise in rate and traffic matters, although a basic understanding is recommended. Neither is the switching line subject to the degree of regulatory control sustained by the carriers that participate in revenue divisions.

Determination and Use of Railroad Freight Rates

Freight rates are published in tariffs and, because of the regulatory factor, have the effect of law. They must be applied correctly by the carrier or damages are awarded; for example, if a railroad applies a wrong rate and it is higher than the correct rate, the shipper should get back the amount overcharged. If the railroad undercharges the shipper, it has a legal obligation to go back and collect the correct charge assuming the wrong rates were applied by mistake and the misapplications are discovered.

If the wrong rate is applied deliberately, for example, by a railroad as a form of kickback or rebate to gain business, both the carrier and ship-

per, if caught, are subject to what can be substantial penalties.

One objective of transportation regulation is to keep the relations between carriers and shippers above board, "out in the open," so to speak. It derives from the high-handed practices of the railroads and many of their customers back in the 1800's.

It is important that a new local railroad know something of the rates that are charged existing shippers or would be charged new customers on the line, so that its representatives can talk intelligently about the line's services. The connecting trunk line's agent for the area should have this information or can get it from the larger company's Traffic Department (sometimes called the Marketing or Sales Department). If a local shipper has not used a rail service recently and does not maintain up-to-date tariffs, the shipper may not know the current rates on its traffic.

Even though the local carrier may only plan to operate a switching service and be paid a switch payment, it should know the revenues on the freight involved when entering negotiations with the trunk line in order to argue convincingly for the highest payment possible for its services.

The Two Parts of Total Revenue. Carload freight charges are composed of two parts. The first is the rate itself, usually stated in per one-hundred pound quantities, but at times quoted per ton, per carload, or on some other basis. The second part is the volume minimum weight, which is the minimum amount of freight the shipper must tender to the railroad to be charged the carload rate in question.

As an example, assume the rate on a commodity is one dollar per one-hundred pounds (cwt.) shipped, subject to a volume minimum weight of 30,000 pounds. If the shipper loads 30,000 pounds into the freight car, his total charges will be one dollar per cwt. times 300 cwt. (or 30,000 pounds), or \$300. If he loads more, say 40,000 pounds, the charge will be \$400, the rate times the actual amount shipped. If he loads slightly less than 30,000 pounds he is billed as if he in fact loaded 30,000 pounds and is charged \$300. In order to set a rate per hundredweight, the regulatory agency allows the railroad to set the minimum required weight to assure it of a particular minimum amount of revenue at that rate.

Thus in determining total revenue on a shipment, both the rate and the minimum amount of freight required that applies to that rate must be known.

Even a short course in rate location and determination is beyond the scope of this Handbook, but four references are listed below that should orient the new railroad operator as to the mechanics involved. As in books referred to earlier, if the new line in question is not near a good library facility, the authors suggest writing directly to the publisher for copies. In order of preference:

Kenneth U. Flood, *Traffic Management*, Third Edition. Wm. C. Brown Company Publishers, Dubuque, Iowa, 1975. Especially Chapters 4-7.

Roy J. Sampson and Martin T. Farris, *Domestic Transportation*, Third Edition. Houghton Mifflin Company, Boston, Massachusetts, 1975. Especially Chapters 10-13.

Marvin L. Fair and Ernest W. Williams, Jr., *Economics of Transportation and Logistics*. Business Publications, Inc., Dallas, Texas, 1975. Especially Chapters 16-18.

Charles A. Taff, *Management of Physical Distribution and Transportation*, Fifth Edition. Richard D. Irwin, Inc., Homewood, Illinois, 1972. Especially Chapters 14-16.

Each of these texts contains excellent bibliographies if rail carrier management wishes to pursue the rate application question further.

Factors That Affect Railroad Freight Rates. Railroad rates are based on either one or a combination of two major factors: what it costs the company to move the freight, and/or the amount of competition by other railroads, or truck or barge lines, for the freight. Cost factors include how much space the commodity takes up relative to its weight, how susceptible it is to theft and damage, including handling or contamination. Also important are special handling requirements—as in the case of explosives—or particular services needed, for example, refrigeration for perishables.

Competitive factors are equally important. For unpackaged or bulk commodities in large volumes, railroad rates tend to be lower where barge line competition exists. Nationwide truck transportation, of course, can be an effective competitor on all but a small number of commodities. It is such competition that is the primary reason for this Handbook.

Defining High and Low Value Freight. High value freight means freight that takes a relatively high rate and produces high revenues for

a railroad. What sometimes appears illogical to one inexperienced in transportation, is how an item such as coal, which pound for pound is less valuable marketwise than say, alcoholic beverages, would be considered better freight than the beverages.

The answer goes back to handling costs and the competition. Coal is relatively cheap to handle and is almost impossible to damage. Also, except where barge transportation exists, the competition is fairly ineffective, thus railroads can charge compensatory rates on the commodity. The beverages, on the other hand, are susceptible to theft and damage, require careful handling, and are shipped in quantities that make them ideal candidates for transportation by truck. Thus, it should not be surprising that a railroader may consider several carloads of coal on a regular basis more desirable freight than a load or two of alcoholic beverages.

Another complication in determining the freight revenue of a line is the fact that while a commodity is considered desirable freight in one section of the country, it may not be in another. Grain is a case in point. Although moved in large quantities in parts of the Midwest, rail managers were not always pleased with grain because of rates that were hard to raise despite cost increases involved in moving the commodity. The reason seemed to be the importance of grain to the public; and thus the regulators were hesitant to raise rates because of fear of public reaction to resultant food price increases. Truck competition also kept the rates at unsatisfactory levels. On the other hand, the manager of a small southeast carrier said grain was his most profitable commodity.

Consequently, what may be good freight in one part of the country may not be in another. A local line should seek to haul railroad-oriented freight if possible; for example, coal and raw materials, lumber products, chemicals—items where there is a natural railroad cost advantage. Through provision of reliable if slower service than trucks, however, truck-oriented freight can be handled successfully by rail if the rate difference is competitive. One prerequisite to long-run success for a local line is to be able to handle the largest freight cars available to haul different commodities. Rail's ability to compete often is based on lower rates in exchange for higher carload minimum weights. Inability to handle cars

with maximum capacities means higher rates must be charged, opening up the movement to the competition. To summarize, local rail management must retain present and seek new business to succeed. Knowledge of rates and related matters will be necessary to talk effectively with both present and prospective shippers and the trunk lines when establishing revenue divisions or switching payments.

The Factor of Regulation—Class II Line-Haul Railroads

From a regulatory standpoint, there are three distinct categories of local, small railroads. These will now be delineated and defined and each type will be referred to by its appropriate name throughout the remainder of the Handbook. The advantages and disadvantages of each carrier type will be included.

The most extensively regulated local railroad is designated a Class II or Short Line railroad. While all rail lines of the kind we have been discussing are short, relative to trunk lines, the term Short Line, or Class II railroad, will refer to lines that are regulated in the same fashion as trunk lines. The regulated carriers are called common carriers regardless of size. Technically, a Class II carrier is one that generates annually less than \$10 million in gross operating revenues. A Class I railroad, which we have referred to as a trunk line up to now, is one that grosses operating revenues of \$10 million or more. These are Interstate Commerce Commission definitions.

In 1976, there were less than 60 Class I railroads and this number probably will shrink in future years as the railroad merger movement is carried forward. On the other hand, there are between 260 and 275 Class II lines, the number varying due to bankruptcies, suspended operations, and the creation of new companies.

The differences in size and scope of operations understandably varies widely among Class II carriers. In terms of mileage operated, for example, they range from less than one mile to over 200 miles. While many lines own no freight cars of their own, others have fleets of over one hundred cars. Although this Handbook is designed for any party or parties seriously considering a new railroad operation, we feel its most substantial impact would be for prospective lines that would gross less than one million dollars

yearly in operating revenues. In fact, the cost estimates presented in a later section are based on the operating data of carriers with annual revenues of less than one million dollars.

While different in mileage and amount of business transacted, the Class II lines resemble their Class I cousins in the way they are regulated by the Federal and state governments.

This regulation takes two forms: safety and economic regulation. All railroads are subject to safety regulation but not all of them are regulated in an economic sense. Economic regulation refers to control over entry into the railroad business and abandonment of operations, control over price and rate adjustments and pricing techniques in the interest of assuring the shipping public of an adequate service at a reasonable price, and all related matters. It includes submission of an extensive Annual Report to the Interstate Commerce Commission, Form R-2, a copy of selected pages of which is included in Appendix 4.

The regulation of railroads is quite similar to that of public utilities such as electric, water, and telephone companies. In fact, the railroads were the first industry in this country to be regulated as a public utility; the Federal government entered the regulation field as early as 1887. A clear, yet fairly comprehensive, discussion of railroad regulation can be found in the following textbooks.

D. Philip Locklin, *Economics of Transportation*, Seventh Edition. Richard D. Irwin, Inc., Homewood, IL 60430, 1972. Especially Chapters 9-25.

Roy J. Sampson and Martin T. Farris, *Domestic Transportation*, Third Edition. Houghton Mifflin Company, Boston, MA, 1975. Especially Chapter 7 and Part 6 (Chapters 20-24).

Marvin L. Fair and Ernest W. Williams, Jr., *Economics of Transportation and Logistics*. Business Publications, Inc., Dallas, TX, 1975. Especially Chapter 11 and Part IV (Chapters 20-23).

Dudley F. Pegrum, *Transportation: Economics and Public Policy*, Third Edition. Richard D. Irwin, Inc., Homewood, IL 60430, 1973. Especially Chapters 11-13, 17, 21.

A much more detailed analysis of the various facets of regulation is found in:

John Guandolo, *Transportation Law*, Second Edition. Wm. C. Brown Publishers, Dubuque, Iowa, 1973.

Marvin L. Fair and John Guandolo, *Transportation Regulation*, Seventh Edition. Wm. C. Brown Company Publishers, Dubuque, Iowa, 1972.

The Federal agency in charge of economic regulation of railroads is the Interstate Com-

merce Commission, and it has control over any freight traffic that crosses a state line or that the shipper intends to cross a state line. Freight that moves solely within one state from origin to ultimate destination is intrastate freight and under the control of the appropriate state agency. A list of these agencies is contained in Appendix 5. As mentioned earlier, many short line managers consider this regulation overly extensive and unnecessary in many regards. One called it a form of harassment.

Yet, regulation is a necessary evil, for only railroads so fully regulated can participate in revenue divisions with Class I and/or Class II carriers. Since the rates that determine the revenues are subject to control, all carriers affected by the rates or charging them, are subject to control. This means that Class II carriers must be part of the process by which rates are established, changed, and published. This, in turn, means participating in rate bureau or association activities *and supporting* the prices that are collectively agreed upon by the carriers. The primary rate associations are shown in Appendix 6. It should be remembered that divisions are regarded in the industry providing the best chance to return a profit on a short line operation.

Class II regulation also means that a newly created firm must receive permission of the appropriate agency—usually the ICC—in order to initiate operations (see Appendix 7 for the types of necessary information to be filed), and also must receive permission to abandon such operations. Regulation in large part is responsible for the requirement of experienced legal counsel when engaged in the railroad business.

One short line railroad manager referred to the regulation to which his company was subjected as follows: "It means that we play railroad just the way the big companies play railroad. In a way it's helpful for it means we (the short lines) are just as responsible to each other and the shippers *as they* (the Class I's) *are*. We can't get away with anything and they can't either. It means we respect each other."

Switching/Terminal and Industrial/Private Railroads

Both of these type carriers earn their operating income from switching charges negotiated be-

tween the local line and the connecting Class I or II carrier. The switch charge is felt by short line management not to have the profit potential of revenue divisions, but carriers receiving it save money by not having to participate in rate-making and other traffic activities.

The difference between the two categories has to do with ownership, organization, and the degree of regulation. The Switching and Terminal railroad (S&T), is a distinct entity—usually a corporation but possibly a proprietorship or partnership—created as a subsidiary of a company or as an independent firm. It publishes its switching charge in a tariff which must be on file with the ICC and/or state agency. (There are both Class I and II switching and terminal companies.)

Besides saving money by not being involved in rate activities, a S&T line usually does not bill shippers, collect demurrage charges, prepare shipping documents or related functions. It bills the connecting railroad for every car handled to and from the interchange point with that carrier and the connecting carrier handles the activities listed. As said, S&T lines cannot participate in revenue divisions. Short lines or Class II roads, however, can earn switching charges as well as divisions of revenue.

Industrial or private railroads, referred to hereafter as private carriers, are railroads operated by a company strictly for its own use, much as an individual operates an automobile and carries one's own groceries or a firm operates trucks to deliver its products. In this case the line would be delivering and/or picking up freight cars at the interchange point with the connecting railroad and as such it would probably not be organized as a separate legal entry, but rather as a department, office, branch; some part of the parent firm.

Like a switching railroad, it would not engage in the paperwork and documents routine of the Class I or II connecting carrier. Income would be derived from the "allowance" paid it by the connecting line. The "allowance" concept is based on the following reasoning. One of the obligations of a Class I or II regulated railroad is to pick up and deliver the freight tendered to it, either at the shipper's place of business or a convenient location to the customer. By having the shipper's own private line perform this

service, the connecting line is saving money by not having to do it. Thus, the "allowance" is based on the cost the connecting carrier *does not* incur by *not* having to pick up or deliver the freight.

Private switching primarily is intended for shippers with large industrial complexes adjoining the connecting carrier's line, where the arrival or pickup time of the connecting railroad might be inconvenient for the shipper. Thus, he provides his own service at his own convenience. The concept, however, conceivably could apply to any shipper providing his own pickup and/or delivery service. He does not have to possess an industrial complex nor necessarily be located adjoining the connecting carrier's line. Furthermore, the shipper could be a group of shippers, a cooperative that is merely performing its own switching service.

What the individual shipper or shipper group must beware of is receiving an "allowance" payment greater than the full cost to the connecting carrier of providing an equivalent service. Such an excessive payment could be interpreted by the ICC as a form of rebate or kickback and consequently termed illegal. While the amount of this payment technically is not regulated by the ICC, the tariffs published by the regulated connecting carriers must show the rates on freight moved in connection with the private lines. The ICC, of course, can control these through rates and can judge what is a proper or excessive "allowance." What this evidently means is that so long as a payment to a private line by a regulated carrier is not above the cost of the regulated carrier to perform the switching service, such an allowance is not "excessive."

Thus, local interests investigating takeover of a Class I property have up to three possible methods of receiving payment for services performed, which are accompanied by certain risk factors and legal requirements. Because there tends to be a thin line at times between what legally is termed a short line, as opposed to a switching line, as opposed to a private line, the authors would insist that, in the interest of avoiding financial penalties, local individuals or groups apply to the ICC and applicable state agencies for a formal determination of the legal status of their proposed rail line.

The remaining material in this section deals with estimating a potential line's revenues, including revenue negotiations with the connecting carrier or carriers.

Estimating Operating Revenue: The First Step

In attempting to determine the revenue potential for a new local rail line, two types of knowledge are necessary: (1) the number of carloads that will be handled annually on the line, and (2) the revenue received per carload. The first requirement should be obtained by local interests on their own, the second will be determined only after the new line's owners have negotiated and settled with the connecting railroad regarding revenue divisions and/or switching charges. Some ideas regarding both activities are now presented.

The number of cars moved over the line in question and the revenue generated by these movements should not be difficult to determine. The shippers along the line have this information as does the connecting railroad that has been or currently is operating it. The connecting line's records of this type data are not public information; however, if the railroad has filed for abandonment it may have to reveal such facts as part of its petition to cease service. The files of the local shippers themselves should be the best source, both in terms of time required to secure the data and its accuracy, but this material certainly is not public information and shippers may be reluctant to reveal it. If this occurs, promoters of a local takeover must re-evaluate their entire scheme, for without complete shippers' cooperation plus a willingness to utilize the local rail service, the project in all likelihood is already doomed as a profitable venture.

Again, short line managers warn against depending on promises of future traffic by shippers or optimistic projections by local booster groups. New lines must accept what is available now and figure on having to live with it.

It is possible that traffic over the line could be improved were service and/or rate changes made. For example, if service were increased to five-days-per-week instead of twice a week, or the rate reduced per carload (assuming ICC approval) to or from primary markets or supply points, respectively, perhaps in return for raising the volume minimum weight per carload, then

increased traffic might result. Much of the success of such plans depends upon the cooperation of the connecting railroad. It must provide better service at the interchange point and be willing to participate in the rate revision.

The question remains; even if these improvements and changes are made, will shippers use railroad service? A positive answer is impossible, but an obvious point can be made. If it is the shippers themselves who take the lead in preserving rail service, especially by raising funds to initiate a local takeover operation, then they stand to lose money if they do not follow through and patronize the line. Thus, we strongly advise that local shippers be the primary mover or main participant in retaining rail service.

Negotiating with the Connecting Carrier

Once local interests have evaluated the traffic potential of the line they wish to operate, the second step is to negotiate with the Class I or II carrier (assume in almost all cases it will be Class I) the conditions under which the two carriers will interchange freight. In some cases, the local line may interchange with two connecting railroads, but we anticipate this being the exception rather than the rule.

The outcome of these negotiations will be tremendously important with respect to the future success of the new railroad. Next to revenue itself, short line rail managers listed the revenue division, or "split," to be received by the short line, as being the most important component of its long-run profitability. Many, in fact, considered the division to have equal importance to that of the overall revenues themselves. As one explained, "It doesn't mean a thing to haul freight if we don't get a good piece of the revenue." A precise definition of reasonable division varied among the managers, but a minimum of from 15 to 20 percent of total origin to destination revenue is representative of majority opinion. The problem is that the Class I carriers probably will not be willing to grant such divisions. The difference between what the Class I roads used to pay and what they will agree to at present needs explanation.

Bleeders Versus Feeders. In the late 1800's and early 1900's, when many of today's successful short lines were created, most Class I connecting

carriers looked favorably on the small lines as having "feeder" value, and consequently, encouraged their development by granting them liberal revenue divisions. These divisions, in most cases, have not changed over the years.

In the last three decades, with the railroad monopoly in freight transport long a thing of the past, a number of trunk lines now view the short lines as "bleeders" earning an unfairly large division relative to their contribution to the overall transportation service provided. Consequently, they have fought against granting the same divisions to new lines as paid previously, while simultaneously trying to renegotiate the older divisions more in their favor. Understandably, the older short lines are resisting these moves.

We recommend that new short lines begin negotiations by asking for the same divisions that have been paid traditionally by the carrier to smaller lines for equivalent services. The magnitudes of these divisions are not considered public information, but are available from the Class I roads or other short lines that have dealt with the large carrier. The new carrier should have a good idea of what its costs will be and should not accept terms that appear to lead to a marginal or money-losing operation. The new firm, after all, will be providing a service, that of picking up and delivering freight, a chore that is expensive and almost nonproductive when compared to line-haul operations. Under proper circumstances, both local and trunk carriers can profit from their relationship. As the managers advised: "During negotiations, be reasonable and don't be greedy." Try to sell the new carrier's relationship with the trunk line as that of a partnership with the larger firms. Avoid winding up as adversaries.

Being "reasonable" may appear academic to new short line negotiators when the Class I connector begins by offering a minimum division, for example 10 percent, or a marginal switching charge. It is after the initial demands have been placed on the table that the bargaining may become a real test for the new company's management and/or representatives.

The Class I carriers interviewed gave assurances that they would offer a new short line no more than the equivalent of what it would cost them to perform the same service that the smaller

line was going to perform. Any higher payment would mean they were subsidizing, in effect, the short line and it was no longer financially possible nor justifiable to do this. One well-run and profitable trunk line commented on a short line that had ceased operating after the large company had refused to increase divisions paid to it. It was unfortunate, the Class I said, but "We told them what it was worth to us and that we would not pay any more. We also said we didn't feel they would make it on the traffic and money available but they went ahead anyway. When it turns out we were right, we're the ogres because we won't hike the divisions to keep them going. Imagine if all our short line connections expected such treatment and we obliged? We just can no longer support these little lines that can't pay their own way!"

Though the above experience paints a grim picture of new short line prospects, not all Class I's feel this way; in addition, the prospective small line still may have some possibilities to consider, a few of which are mentioned in the following paragraphs.

Potentially Favorable Bargaining Positions.

When entering negotiations, the small firm should know everything possible about the Class I's abandonment plans for the line in question. Specifically, just how badly does the Class I want to abandon the track? How much would it be willing to grant in divisions to a short line to take the unwanted track off its hands? The more it appears the ICC is unwilling to grant cessation of service, the stronger should be the small carrier's position to win good divisions in return for absorbing the property.

What Class I management says and what it does are not always the same. In a recent case, a merger of two Class I lines was predicated on the condition that the new company purchase a short line that would be damaged extensively by the joining of the large companies. A local group then offered to purchase the short line. Despite public statements by the large carrier that it would be exceedingly firm in future revenue divisions with short lines, this same carrier granted the rail line all the former relatively high divisions in return for not having to absorb it into the already enlarged system.

Multiple Connections and Influential Accounts. Two other potential advantages exist for new

short lines. If the line connects with two or more Class I carriers, and both lines are interested in handling traffic generated by the new company, it can offer to tender the majority of it to the Class I granting it the highest divisions or switching charges. This assumes that connecting service with all Class I roads at each interchange point will provide equally satisfactory service for the short line's shippers. If one connecting line provides daily service, and the other provides only twice-weekly or "as required" pick-up and delivery with the short line, the local carrier, in effect, may have only one connection to consider seriously.

As the mergers of Class I lines continue, multiple connection opportunities will be reduced. As it is, local managers stated that the chance for short lines to extract large divisions in this way is decreasing as the large carriers simply refuse to pay above certain limits. A reason for this is that the large companies do not compete among themselves as they once did. Instead they tend to cooperate more as they become fewer in number, and this appears to include becoming more stringent with local railroad payments.

Another possibility is to have the strongest shipper or shippers on the line contact the Class I in behalf of the short line's application and request for reasonable divisions. This can be especially effective if the shipper is a national account; that is, if it has facilities in several parts of the country and is an important rail customer nationwide. The shipper may support the small carrier regardless of the location of these other facilities, whether on the connecting Class I line or on the lines of other major railroads. As stated earlier, the railroad industry works together closely. Collectively it would not want to alienate a good national account for a few percentage points on a revenue division agreement with a short line. The problem is that it is questionable whether the Class I line would be abandoning a line with a national account facility located on it in the first place. The trunk lines are fully aware of the importance and influence of these customers.

Other Matters to be Negotiated. Two additional matters need to be settled between short line and Class I connectors: switching arrangements at interchange point and reclaim per diem. The switching agreement may be very simple if

the track arrangement at the interchange facility is simple. If the interchange point is sufficiently large to be termed a yard, it is important that each carrier knows its rights and obligations in terms of the interchange of cars and the switching and classification of cars within the yard area. These arrangements vary. For example, at one interchange location, the Class I carrier owned the yard but the connecting short line did the switching and classifying.

Regarding a switching arrangement established between a certain short line and a Class I, management of the small line felt that an obligation to segregate the outbound cars for the trunk line into northbound and southbound blocks was a financial burden. The extra switching entailed was not compensated for through higher divisions; in fact, the divisions granted were lower than many in effect in the same area, and these agreements did not include blocking or segregating of cars for the larger carrier. Short lines should be careful to avoid such situations unless, of course, they are compensated adequately for performing these chores.

A last major item to be negotiated is the amount of free time, if any, granted the short line during which it does not have to pay the connecting line a per diem charge while a foreign car is on its line. As in the case of divisions, Class I's in the past had been liberal in granting this free time, considering that a short line would have to pay per diem on the car only after three or four days had elapsed. Today, with freight cars being very expensive, the time granted, termed "reclaim per diem," is perhaps only one to two days or in some instances, none at all.

Most lines interviewed received at least one day before charges started. One carrier received one day if a freight car was loaded inbound or outbound and two days if the car moved loaded in *both* directions. Thus, although bargaining for free time may be difficult, the short line should make the maximum effort to be granted such an allowance. As one manager put it: "Reclaim per diem is becoming a thing of the past." This trend constitutes a strong argument in favor of car ownership by short lines. Reclaim per diem rules, as filed with and approved by the ICC, are described in Appendix 8.

Accepting the First Offer and Future Class I Relationships. The short line managers inter-

viewed were not in agreement as to accepting the Class I's first offer and how extensive bargaining would effect long term relations between the short line and the connecting carrier. Some seemed to argue that most Class I railroads have the economic power to set unilaterally the divisions and other matters that had to be resolved between the parties. A few of these people also had discouraging tales of lines (now out-of-business or financially close to failure) which accepted the trunk line's first offers and thus could not survive profitably. Yet, they seemed resigned to the situation. Their solution, if one existed, was for short line management to come up with some of its own ideas for increasing income and/or cutting costs.

Other managers stressed that the first offer was merely the starting point, that if necessary, the ICC, which has authority to set divisions and service charges, should be brought in to evaluate the situation and perhaps establish a reasonable basis for compensation. While it is true that the Commission has the right to establish these charges, traditionally the agency has preferred not to get involved in such matters. In addition, the litigation probably will be expensive, especially for a new company.

Thus, there is not a consensus on the first offer question, unless, of course, the short line feels it is completely satisfactory. It is felt that this will be the exception rather than the rule. The importance of good long-term relations with the trunk lines, however, must not be underestimated by short line management.

It is imperative that the new short line convince its connector of its intentions to meet its responsibilities, as it expects the trunk line to honor its own responsibilities. Neither side should expect to grant or to receive special favors. As much time and effort needs to be spent by short line management cultivating the Class I relationship as in any other single activity, according to several successful local rail line supervisors. The dependence of the short line on its Class I connecting lines was underscored repeatedly during interviews. A local line that underestimates the importance of this relationship does so at its own peril. It is a factor that makes new short line negotiations with the Class I carrier all the more difficult and challenging.

Methods of Settlement. There are two types of settlement available between a Class II short line and the connecting carrier or carriers who will share in the revenue generated by each shipment. One is called a "Junction Settlement" and the other an "Interline Settlement." As usual, where there is a choice in short line matters, there exist pros and cons for each settlement method. They are determined largely by the volume moved over the short line and whether the freight moves prepaid or collect. Each will be explained.

Under a junction settlement, the short line pays to, or is paid by, the carrier with which it directly interchanges freight, depending upon which carrier owes the other at the end of each payment period—usually a week. The exchange of funds is strictly between the short line and the first connecting carrier. If additional carriers, beyond the first connecting line, are involved in the shipment, as is often the case, the allocating of the revenues among the lines is handled completely by the connecting lines; the short line is not involved.

Before giving an example, the terms prepaid and collect are defined briefly. Prepaid means the origin shipper or consigner pays the freight. On a collect shipment, the receiver of the freight or consignee pays it. This is of importance to the method of settlement: when the freight is prepaid, the originating carrier collects the money; when the terms are collect, the delivering carrier collects the charges.

As an example of the junction settlement, assume a short line originates a *prepaid* shipment. It delivers the car to the ABC railroad at the interchange point. Two additional carriers, the PDQ and XYZ lines handle the shipment, with XYZ the delivering carrier. The short line collects the charges, subtracts out its share of the revenue, and forwards the rest to the connecting line, the ABC railroad. That carrier then settles with the PDQ and XYZ companies. The short line has nothing to do directly with the latter two lines. The same arrangement would be worked out if the XYZ company originated the shipment, the short line received it from the ABC railroad and delivered it to the consignee, terms of payment *collect*. In both examples, the short line collects the freight bill, keeps its share of the revenue, and sends the rest to the connect-

ing carrier. Remember that for the short line to collect the freight charges, the payment terms must be *prepaid* on *outbound* freight and *collect* on *inbound* shipments.

Under a junction settlement agreement, if the payment terms are outbound collect or inbound prepaid, the short line does not collect the revenue and must wait until the connecting carriers divide up their shares, and the short line's interchange carrier forwards the short line's share to it.

The prepaid outbound, collect inbound, example now will be explained under an interline settlement agreement. In both cases, the short line collects the revenues; however, instead of subtracting its share and forwarding the remainder to the first connecting carrier, the short line settles individually with each carrier involved in the haul: the ABC, PDQ and XYZ companies. Where the short line does not collect the revenues, it receives its share from the carrier that does, the XYZ line in the above example.

An obvious advantage of the junction settlement is that the short line has to deal only with the single connecting carrier with which it signs the agreement. That carrier does all the settling with the other lines participating in the traffic. Virtually all the managers who operated under junction settlements agreed this saved them the services and cost of one person, a rate clerk or the like, each year, as opposed to the number of people required to operate under an interline settlement. In return for handling this work, the Class I, at times, has insisted on lower divisions for the short line than might otherwise be the case. Practically all managers using a junction settlement were satisfied with it, many saying it "was the way to go." Most warned, however, that a good rate clerk was necessary to be sure the rates supplied and divisions earned were correct.

The major advantage of the interline settlement has to do with the matter of which carrier collects the revenue, and a related question of how long it holds the money. In the previous example, assume the short line collects the money on either an outbound prepaid or inbound collect basis. Under most junction settlements, the collecting carrier remits the money owed the connecting carriers to the interchange carrier *each week*. Under an interline agreement, however,

settlement is made only on a per month basis. Thus, the collecting carrier, in some cases, gets to keep the shipment revenues for up to 30 days, at least three weeks longer than under the usual junction settlement. This, in turn, allows the short line to realize income by placing the revenues in short-term investment opportunities.

Junction Settlement Recommended for New Short Lines. The junction settlement appears to be the best arrangement where short line volume is relatively small and/or where the short line is *not* responsible for collecting the freight charges. Where volume is substantial *and* the short line collects the revenue, an interline settlement should be investigated. What does substantial volume mean? The interviewers received no specific reply, but the carriers either moving from junction to interline settlement or wanting to change in this direction, averaged between 50 to 60 carloads of revenue per day of operation. We do not envision such volume for most new short lines; consequently, we recommend the junction settlement for its relative simplicity and operational cost savings. Of course, the Class I connector may have different thoughts in the matter, but we gather they generally tend to recommend the same arrangement.

In initiating negotiations regarding divisions and related matters, short line managers suggested first contacting the Marketing Department of the connecting Class I railroad. The official name and address of this department for each of the major Class I carriers, effective July 1976, is included in Appendix 9.

Some Do's and Don'ts when Seeking Revenues

When trying to increase or accelerate collection of gross operating revenues, two possibilities may be overlooked that the short line should consider. Collection of monies is fastest for the short line if it does the collecting rather than leaving it to one of the connecting carriers. Thus, if not already established, the local carrier should try to persuade its on-line customers to set-up freight bill payment on a prepaid outbound or collect inbound basis.

A possible means of making the local service more attractive to current and prospective shippers involves being sure that customers on a light density line do not suffer ratewise compared to shippers located on trunk lines in the same vicinity. Rate or rate basis changes possibly can

be made to correct this problem, as explained in the following paragraph.

A large proportion, perhaps a majority, of railroad freight rates apply from one area (called a rate base area) to another area, as opposed to a single point, such as a city or town, to another single point. The reason is primarily to simplify the overall task of publishing a rate on every conceivable commodity between every conceivable pair of origins and destinations located on a railroad, an insurmountable task. If points on a light density line are located within a rate base area *different* from points located along the connecting trunk line, the chances are good that the rates are higher for points in the short line's area than the points in the adjoining trunk line area. Under certain circumstances, by a local line working with the rate association that publishes the rates to/from the two adjoining areas, the rates can be equalized into and/or out of the short line's area. Thus, shippers on the short line would not be at a disadvantage relative to those located on the Class I line. Although the trunk line understandably may be lukewarm to the idea, the short line, as long as it is a participating member of the rate association, is foolish if it does not attempt to effect such a change. Perpetuation of rates that inherently discriminate against present and potential short line customers has the same effect as an arbitrary charge, the disadvantages of which are explained in the following discussion.

Arbitraries and Local Rates. An arbitrary is a charge that is added to the regular rate in order to increase revenues. Short lines with insufficient volume and/or low divisions have resorted to arbitraries at times, but avoiding them is recommended if at all possible because of their long-term effects. While an arbitrary may work in that the service is prolonged and on-line shippers are provided the service they require, the charge virtually will eliminate any chance of new companies developing on the line. The charge has the effect of a penalty payment which a new company can avoid by locating on a trunk line in the same area. It is the same principle as the indemnification payment described in Part II.

Local rates, used in conjunction with trunk line rates, should be avoided even more than arbitraries. Local rates work as follows: the trunk line rate applies to the interchange point

with the short line; from there to the local carrier's on-line shipper location is a separate rate. The combination of trunk line plus local rate invariably is higher than a single through rate between the short line point and the origin/destination point of the shipment. Thus, like an arbitrary, the local rate is, in effect, a penalty charge, keeps future business from locating on the short line, and may force existing customers to consider alternative transportation or movement away from the short line location. The local rate system is especially onerous if the interchange point and shipper's location are in the same rate base area, for it means that without the local charge the through origin to destination rate to/from the interchange point and the shipper's site otherwise would be the same.

Some trunk lines have threatened to force new short lines into charging local rates, in effect saying they will not grant divisions of any amount. Such a policy is a reason short line management may have to resort to the ICC, litigation, and use of whatever pressure tactics are at its disposal in dealing with a trunk line, even though such action would seem to threaten future harmonious relations between the lines. It is the reason local carrier representatives must be well versed in traffic and legal matters when negotiating with connecting carriers.

The Tourist Business. It is not recommended that local interests get involved in the railroad tourist business even though there exist successful operations that provide freight service as well as passenger rides. There are two major reasons for this recommendation: the recognized need for a steam locomotive which will be difficult to find, expensive to purchase and rebuild, and will require special expertise; and the cost of insurance. Nonetheless, for those wanting to investigate the tourist line potential by visiting and talking with the owners and managers of such lines, the following publications are recommended, both of which give current information regarding operation dates, length of line, type of equipment operated and the like:

Steam Passenger Service Directory, 1976 Edition. Available from Empire State Railway Museum, Inc., P.O. Box 666-P, Middletown, New York 10940. Price: \$2.50 postpaid, \$3.00 first-class mailing.

Passenger Train Journal, June/July 1976 issue. Available from PTJ Publishing, Inc., 3850 Capital City Blvd., Lansing, Michigan 48906. Price: \$1.50 postpaid.

The Next Step

Having studied this section, local interests now should be able to estimate the potential revenues to be generated by a light density rail line. The next step is to estimate the costs of acquiring, rehabilitating, and operating such a line.

Cost of Alternative Forms of Light Density Rail Line Service

Having discussed the potential revenue of a light density rail line, it is now time to consider the cost of operating one. The objectives of this section are as follows:

1. To present fundamental information regarding the importance and nature of costs associated with operating a light density line which is independent of Class I ownership;
2. To discuss the specific nature of each of the relevant types of costs, and to enumerate the factors which may be important when attempting to determine the magnitude of such costs respective to a proposed operation; and
3. To offer suggestions as to how the costs may be estimated with a reasonable degree of accuracy.

It is essential to have a sound understanding of the possible costs which may be associated with such an operation in order to compare their total with potential revenues in a meaningful fashion. Such a comparison is a prime determinant in deciding to implement or to discard a particular alternative regarding the provision of light density line service by other than a Class I carrier.

A comprehensive analysis should include an enumeration of the various costs which are relevant to each proposed alternative to abandonment. In addition, it is necessary to derive an estimate of each cost type so that a meaningful dollar figure may be compared with revenues for decision-making purposes. Although it may be tempting at this time to solicit the informed opinion of a single person or perhaps a group of people regarding expected costs, the interviews with executive personnel of 60 short line railroads resulted in a few general ideas which must be given careful consideration: "Every line must be considered unique;" "There is no generally

accepted methodology for estimating potential costs without knowing particulars of the situation;" and "Given any individual cost category there are few acknowledged 'best' approaches to minimizing the outlays of funds for that particular purpose." In short, costs depend upon a wide variety of factors, and if such factors are not known in advance, any estimation procedure may lack credibility.

As an example, consider an attempt to estimate how much it will be necessary to spend to maintain the right-of-way on a proposed property. Some types of information which are necessary include: desired condition of right-of-way; density of usage in terms of tons of freight or cars to be moved over the line per period of time; form of ownership; number of maintenance-of-way personnel; prevailing wage rates; specialized equipment needs; types of traffic; and physical and topographical facts about the line. This list is by no means comprehensive, but should indicate that obtaining such an estimate is no easy task.

Table 1 has been developed for the reader to see in a general format the main factors which

affect the costs in which we are interested. Although the list is not all-inclusive, it does illustrate the need to be knowledgeable about a wide range of related and unrelated topics before an attempt to estimate costs may be made. For convenience, the factors in Table 1 have been divided into three categories: (1) relatively uncontrollable; (2) controllable in the intermediate-long term; and (3) managerially controllable in the short-intermediate term. Such a breakdown should help to organize consideration of each factor, but the peculiarities of each situation may justify some disagreement with the way in which the list is presented.

Before cost-influencing factors and types of costs themselves are discussed in detail, it should be understood that two different schools of thought exist regarding costs. The first shall be referred to as the "revenue-independent" school, and the second as the "revenue-dependent" school. When analyzing costs, the first would state that costs are independent of revenue considerations, at least in the planning stage of a proposed operation. This would imply that costs be estimated as closely as possible with little regard for available revenue. A comparison of expected costs with potential revenues would then indicate the economic feasibility of the idea. The revenue-dependent philosophy would subscribe to the notion that once revenues are known, then costs should be managed so that the total does not exceed such available revenue. Basically, these two approaches differ in that the former is a long-run strategy, while the latter represents pitifully short-run thinking. Although it is nearly impossible to believe that all costs are revenue-independent (for example, size of the work force may be altered as output and hence revenues change), costs should be carefully estimated in response to the needs of the operation, and not solely on the basis of how much revenue is available. Strong belief in the idea that long-run costs are to be dictated only by revenues (the "revenue-dependent" school) will almost certainly be the cause for failure.

The remainder of this section will concentrate on two main topics: (1) the nature of light density rail line costs, and (2) procedures for cost estimation. The first is designed to orient the user in terms of cost categories together with providing an in-depth understanding of the fac-

Table 1.—Cost-Influencing Factors

Relatively Uncontrollable	Geographical considerations
	Physical characteristics of the line
	Interchange points with connecting carriers
	Regulatory restrictions and requirements
Controllable in Intermediate-Long Term	Valuation of property
	Applicable taxes
	Commodities (types and tonnages)
	Shippers
	Length of haul
	Ownership of the line
	Degree of local area industrialization
Managerially Controllable in Short-Intermediate Term	Organization of labor
	Weight of rail
	Ties per mile
	Standards of maintenance desired
	Wage rates (depends on existing labor contracts)
	Switching vs. line-haul service hours
	Types of equipment (power and rolling stock)
	Output desired (tons, cars, locomotive unit-miles)
	Number of personnel (operating and non-operating)
	Maintenance (internal or by contract)
	Car supply

tors which affect these categories. The second discusses methodologies for reliable cost estimation.

The Nature of Light Density Rail Line Costs

Plans to operate a light density line independent of Class I ownership must consider four types of costs:

1. Acquisition
2. Rehabilitation
3. Operating
4. Nonoperating

The costs of acquiring railroad properties and of rehabilitating deteriorated trackage to meet some minimum standard should be considered as "set-up" costs which must be incurred when a decision has been made to implement a particular strategy. They represent an initial cost, as such constitute an investment, and may be amortized over a period of years depending on the methods of financing available. The sum total of operating and nonoperating expenses includes those which are incurred on a year-to-year basis, and may include appropriate allowances for depreciation and interest on debt.

Acquisition. There is a broad range of railroad property which possibly may be acquired from the carrier formerly providing service on the line in question. The major categories of such property are road properties, equipment, materials, and general and administrative assets. Further refinement within each of these is shown in Table 2. While a potential operator may not have the opportunity to acquire all types of such property from the formerly serving road, it should be understood that many of the property types exhibited are essential for providing light density line service.

A discussion of acquisition should include several important points regarding available alternatives. First, acquisition most commonly refers to the *purchase* of railroad property; although *leasing* of such property may accomplish the same objective. The initial capital costs associated with the outright purchase option are substantial, while a leasing arrangement will obviate the need for such an immediate outlay. Leasing, however, is likely to result in yearly rents which will be higher than the sum totals per year of depreciation and interest costs if an

Table 2.—Categories of Rail Properties for Acquisition Purposes

ROAD PROPERTIES

1. Rail Lines
 - right-of-way land
 - track structure
 - grade crossing signals
 - communications systems
 - bridges, tunnels, and other appurtenances
2. Facilities
 - yards
 - shops and maintenance facilities
 - offices
 - stations
 - inter-modal facilities

EQUIPMENT

1. Locomotive Units
2. Freight-Train Cars
3. Company Service Cars (derrick, snow removal, dump, ballast, and other maintenance and service equipment cars)
4. Miscellaneous and Other

MATERIALS

1. Track Repair Equipment
2. Maintenance of Way Materials
3. Locomotive and Freight Car Supplies
4. Shop and Plant Maintenance Items

GENERAL AND ADMINISTRATIVE ASSETS

1. Business Supplies
2. Warehouses
3. Files and Records
4. Executory Contracts and Agreements

Source: Adapted from USRA, *Final System Plan*, 1975, pp. 239-256, and ICC, *Annual Report-Class II Railroads* (Form R-2).

option to purchase had been exercised. The greatest flexibility and long-term economic efficiency may result from a combination of the two, a lease-purchase plan.

A second alternative is whether to acquire all branch line property or to limit such purchases to only properties constituting the "road property" category, or perhaps even to rail lines only. The extent to which various properties should be acquired will depend upon the operational needs of the proposed venture, the current condition of such property, and the cost of acquisition.

Another issue regarding the acquisition process is that of a negotiated sale versus the transfer of property through a condemnation proceeding and related execution of powers of eminent domain (primarily used when the buyer and selling railroad find it difficult to arrive at mutually satisfactory terms of sale). The former is frequently

a more convenient and agreeable method while the latter is likely to be more lengthy and expensive. An option to be considered when dealing with bankrupt railroads is the acquisition of property from mortgages and other lien holders of the properties at issue. Finally, there are various methods by which the properties may be valued, and a number of financing alternatives which may be used to secure the property. These will be discussed subsequently.

Valuation. An extremely important issue is the basis upon which transferable railroad property will be valued for the purpose of acquisition (and subsequent rate-making). Although there are a variety of valuation methodologies, four of the most appropriate have been selected for presentation here. *Net liquidation value* is the gross salvage value of physical property net of the cost of removal of such property plus market value of the land. One difficulty with this method, that of assuming that physical assets are to be removed, is overcome by employing the principle of *gross liquidation value*. This refers to the gross salvage value of physical property plus the market value of land, and will result in a higher valuation than in the previous case. *Book value* (or asset value) typically provides an even greater valuation, but in fact may understate true value in the cases of lines which have a fair profit potential when operated independently or which may constitute key connections with the line of other carriers. In addition, book value is often low due to subsequent appreciation of real assets. Capitalized *earning power valuation* is also a relevant basis. It represents the present value of future income streams. Although this method effectively treats the issue of the line's ability to generate future revenues, the value may be the highest of the four methods discussed. If possible, efforts should be made to assure that property is valued on a gross liquidation value basis; this is the most reasonable and fair from the viewpoint of potential operators of light density lines.

Sources of Funds. Recognizing that implementation of any of the alternatives for preserving local rail service will require the availability of funds, it is necessary to understand the various potential sources of investment and working capital. Included in *Ex Parte 293* (Sub. No. 6) of the Interstate Commerce Commission is an

excellent discussion of means of private financing, public financing, and non-cash inducements for continued rail service. The relevant sections have been reproduced in Appendix 3. Methods which may rely upon the availability of *private sources* of funds include the following:

- Establishment of lines of credit with commercial lending institutions
- Bonds and mortgages
- Issuance of common and preferred stock
- Leases of right-of-way and/or operating equipment rather than purchasing such assets
- Tax shelters
- Government-guaranteed loans
- Indirect subsidies such as non-taxable bonds

Even greater participation by state and local governments may result from any of a variety of sources of *public funds*. Some examples are:

- General obligation bonds
- Revenue bonds
- General tax revenues
- Creation of development districts or zones
- Special tax assessments or surcharges
- Creation of regional authorities
- Development corporations
- Grants
- Forgiveness of tax claims on the railroad properties

In addition, the federal government should be considered a possible source of funds. Federal assistance is available to the states for lines excluded from the Consolidated Rail Corporation through Title IV of the *Regional Rail Reorganization Act of 1973* and through the *Railroad Revitalization and Regulatory Reform Act of 1976* for lines anywhere in the U.S. approved for abandonment by the ICC after February 5, 1976. Various grant programs are also available from government agencies. Examples include the Departments of Commerce, Housing and Urban Development, and the Small Business Administration. These agencies offer grants for research and implementation purposes, some direct loans, and programs to guarantee or insure loans. Such funds generally are available to both profit and non-profit institutions which may include public and private organizations and private citizens. Direct contact should be made with such agencies

to determine the eligibility of a specific independent railroad project for available programs.

It would be misleading to conclude this discussion of acquisition without giving fair warning that a thorough adherence to all necessary details and considerations will be a time-consuming and exacting process. It should not be expected that all phases of acquisition will go smoothly, rather, the opposite is more likely. For example, there may be different owners of different segments of the rail property in question, and perhaps some of it is heavily mortgaged entailing dealings with mortgages or lien holders. Although this is likely to be the case when dealing with bankrupt carriers, negotiations with non-bankrupt carriers may also encounter such problems. The issue of reversionary rights also may create problems. In such a situation, when a railroad is sold, some of the land may revert back to the original owner. In general, it may be a very complicated and perhaps frustrating process to obtain clear title to the properties sought, particularly land. The use of competent legal counsel is strongly encouraged.

Rehabilitation. Once acquired, there is a real need to rehabilitate rail property (particularly right-of-way and track structure) to some predetermined standard. This will allow the yearly execution of programmed maintenance which should be designed to maintain the property following rehabilitation. The selection of appropriate standards typically is based on the desired operating capability of the line in terms of train speed. The Federal Railroad Administration (FRA) has set such track standards depending on speed desired, and a summary of these has been placed in Appendix 10. In addition, Table 3 outlines such standards as they apply to the tie renewal rates for Class I, II, and normalized track. Since Class I track maximum operating speed is 10 miles per hour and Class II is 25 miles per hour, most short-haul lines will not find it necessary to rehabilitate to higher standards, since a high speed capability is not regarded as necessary for the large majority of short line operations.

The recommended rehabilitation procedure consists of the following activities:

1. Draining the right-of-way
2. Replacing ballast
3. Replacing ties

4. Replacing rail by upgrading to at least 80 to 90 pounds per yard.

Repairs should be made only when necessary; however, many Class I carrier branch lines have been victims of the practice of deferred maintenance and considerable rehabilitation may be necessary.

Tables 4 and 5 indicate the wide variety of considerations necessary regarding rail line rehabilitation and the types of materials which may be required. Perhaps the best approach to rehabilitation would be to secure an estimate of the approximate cost involved from a firm specializing in rehabilitation and maintenance of way. In doing so, the extent of such needs will be clearly understood. It subsequently may be advisable to have the work performed by the particular firm contacted rather than by employees of the line. Further ideas about rehabilitation and maintenance of property are included in the discussion of "maintenance of way and structures."

Although it is important to consider acquisition and rehabilitation expenses as initial financial commitments, their associated costs may be

Table 3.—FRA Track Standards and Necessary Tie Renewal Rates^{1,2}

	CLASS OF TRACK		
	I	II	Normalized ³
Maximum distance in inches between non-defective ties (center to center)	100	70	21
Minimum number of non-defective ties per 39 feet of track	5	8	22
Minimum number of good ties required per mile	677	1083	3000
Average tie life (when installed)			
Average necessary tie replacements per mile per year to maintain track standard	10 yrs. 20 yrs. 30 yrs.	68 34 23	108 54 36
			300 150 100

¹For a complete statement of FRA Track Standards see the following references in the *Federal Register*: 36 FR 20336; 38 FR 873; and 38 FR 1508. A brief guide to such standards appears in Appendix 10.

²The table construction assumes a total of 3000 ties per mile of track.

³Track is maintained on a normalized basis when one-half of the useful life of the track components remains. Theoretically, this standard of maintenance will preserve the entire capital investment in perpetuity.

Table 4.—Rail-Line Rehabilitation Considerations

Rail Grinding
 Rail Welding
 Surfacing
 Ballast Cleaning
 Weed Clearing
 Grade Crossings
 Bridges and Trestles
 Ditching and Culverts
 Tunnels
 Materials
 Labor
 Work Train

Source: Interstate Commerce Commission, Rail Services Planning Office, Office of Public Counsel, *Guide for Evaluating the Community Impact of Rail Service Discontinuance*, 1975, p. 77.

Table 5.—Rail-Line Rehabilitation Materials

Rail
 Joint Bars
 Track Bolts
 Rail Anchors
 Tie Plates
 Spikes
 Ties
 Ballast
 Switches
 Switch Rails
 Frogs
 Guard Rails

Source: Interstate Commerce Commission, Rail Services Planning Office, Office of Public Counsel, *Guide for Evaluating the Community Impact of Rail Service Discontinuance*, 1975, p. 76.

amortized over a period of years with appropriate capital cost deductions made on a year-to-year basis. Thus, acquisition and rehabilitation costs are not independent of the entries into yearly operating and non-operating cost accounts and probably will represent substantial yearly deductions from operating revenues.

Railway Operating Expenses. For purposes of this discussion, it is convenient to make reference to the various types of operating expenses as enumerated in the *Form R-2 Annual Report to the Interstate Commerce Commission for Class II Rail Common Carriers* (see Appendix 4 for selected pages of interest). Although proposed operations which will be legally classified

as "private" rather than "common" carriers are not required to report in such a manner, the format of the report may be useful to such operations as a planning tool. It should be acknowledged that all Class II common carriers do not agree on the extent to which the ICC Annual Report format satisfies their accounting needs. Rather, many carriers prefer to employ a separate method for internal purposes. Because such a preference provides no relief from regulatory reporting requirements, the procedure followed therein will be referred to frequently in this section.

Total operating expenses consist of five major categories of costs: (1) maintenance of way and structures; (2) maintenance of equipment; (3) traffic; (4) transportation; and (5) general. The percentage of total cost represented by each of these will vary from line-to-line and will depend on the nature and direction of responsibility within each line. It may be helpful at this point to offer a range of percentages of total operating costs which are likely to be experienced without regard to the specifics of individual lines. Table 6 illustrates the types of information gathered from recent experiences of a number of Class II railroads. On a line-by-line basis, the relative magnitudes of the various types of expenditures depend on a variety of factors, many of which will be discussed following a detailed examination of the nature of each cost category. Subsequently, procedures for cost estimation will be presented.

Maintenance of Way and Structures. This category includes those costs related to maintenance of right-of-way; track structure; signals and communications system; appurtenant structures such as bridges, tunnels, and buildings; and other road property facilities such as yards and stations. Although there are a variety of accounts included in maintenance of way and structures, major categories are considered to be superintendence, roadway maintenance, and maintaining structures. See Appendix 4, page entitled "Railway Operating Expenses," for more detail regarding the nature of all operating cost categories.

Superintendence includes the chargeable portions of pay of officers, clerks, and attendants engaged in the activity, as well as relevant office and other expenses. Roadway maintenance typically consists of such activities as the align-

ment and replacement of railroad ties, ballasting, ditching for drainage purposes, weed-killing, and general upkeep of appurtenant structures. Because the condition of right-of-way and track structure is thought by a majority of short line operators to be a prime determinant of a line's ability to move traffic efficiently, great care should be taken to assure that any proposed operation develop a sound plan for maintenance and then closely follow such a plan. The practice of deferring maintenance in the short run should be avoided, but if necessary due to a temporary reduction in revenues or unusual increase in some cost category, it should be practiced only with extreme caution. This is because deferred maintenance happens to be a convenient way to alleviate short-run problems, but can also be a prime determinant of long-run failure. The final major category is maintaining structures. This refers to the upkeep of property not considered as rail line such as stations and office buildings, fuel stations, grain elevators, storage warehouses, and shops and engine houses.

Table 6.—Operating Expense Categories

<i>Category</i>	<i>Percentage of Total Operating Cost¹</i>
Maintenance of Way and Structures	25-35
Maintenance of Equipment	10-20
Traffic	2- 6
Transportation	30-45
General	12-25

¹ Percentages indicate a likely range, but may be expected to vary somewhat depending on specific of particular operations.

Source: *Form R-2 Annual Report to the Interstate Commerce Commission* as filed in 1974 by 102 Class II railroad carriers having gross freight revenues of less than \$1,000,000. Also important were the personal observations of Class II carrier executives interviewed.

In addition to the initial rehabilitation of the right-of-way, trackage, and associated structures to some predetermined condition, it is also necessary to maintain the way and structures according to a well-considered plan. Although implementation of such practices will not guarantee that extraordinary expenditures of funds will never be required, the true value of such a plan lies in the resulting high probability that interruptions of normal service will not occur fre-

quently. Another point which should not be underestimated is that roads in good condition frequently find the investing community and public more anxious to help fund capital improvements when necessary.

There are several factors to be carefully considered before determining yearly maintenance needs, and hence estimating the costs associated with maintenance of way and structures in total. Those which are considered to be most important are: (1) physical characteristics of the line; (2) types of traffic; (3) service desired; (4) in-house versus contract maintenance; (5) regulatory considerations; and (6) superintendence and labor.

1. *Physical Characteristics of the Line.* Items of importance in this category include grades, curves, crossings, appurtenant structures, drainage, and weather. Although some short lines experience grades of three to four percent, such is not the typical case. Rather, many lines are located on-grade throughout the length of haul (particularly in the Midwest), whereas others experience only slight grades. Sharp curves are also an exception rather than the rule, but may exist because of topographical conditions. The existence of steep grades and many curves will place a strain on the maintenance of way function for two reasons. First, the right-of-way and track structure are subject to faster deterioration when such conditions exist, and second, it may be difficult to physically move heavy maintenance of way equipment and supplies (rail, ties, ballast, etc.) along the line in those areas. Highway crossings must be maintained at all times to minimize the possibilities of accidents involving motor vehicles and train derailments. In addition, existing local and state laws may require the adherence to certain standards which may include placing mechanical signaling devices at crossings. Structures such as tunnels, bridges, and trestles should be properly maintained to prevent the deterioration of these structures which could result in complete cessation of traffic movements (and hence the ability to generate revenues) and extreme rebuilding costs. For example, reconstruction of a 20-foot trestle required an outlay of nearly \$40,000 by a short line with only a seven mile total length. Personal interviews with managers of other railroads indicated that the costs of replacing larger structures may entail expenditures of many times that amount.

Improper drainage patterns and adverse prevailing weather conditions will promote erosion of the right-of-way and track structure. In particular, ballast may be misplaced in such instances, and ties are likely to have a shorter useful life. Proper ditching along the right-of-way and a periodic program of weed control should be used to reduce the frequency with which major improvements must be made. Finally, locally prevailing conditions will determine the availability of various types of ballast, and the particular purchases made must be balanced with the specific needs of the line.

2. *Types of Traffic.* Condition of the way to be maintained will depend on the types of equipment and freight that will utilize the line. Large cars hauling high weight-density (pounds per cubic foot) products such as coal, forest products, and metallic products will require the support of a more capable track structure than will smaller cars hauling commodities of lesser weight-density such as packaged freight, freight forwarder traffic, and electrical machinery. In addition, since larger freight tonnages require greater locomotive power, the demands placed on the track and roadbed are likely to be more significant in such cases. As a result, greater amounts of ballast will be needed to support the treated wooden ties which in turn support the tie plates and rail. Commodity types will also affect the rail weight as measured in pounds per yard. Although most Class II line haul railroads are upgrading to rail weight of approximately 90 pounds, those hauling larger volumes of high weight-density freight are commonly replacing existing rail with new or used rail weighing 115 pounds per yard and even more. It should be noted that the minimum weight of all new rail currently being manufactured is 115 pound rail, and so rail of lesser weight is likely to be available only as used or relay rail. Although improved track structure certainly requires larger initial outlay of funds, the incremental investment will more than return its cost in terms of increased efficiency of rail-line operations.

3. *Service Desired.* In terms of train speed and frequency, higher levels of facility utilization will place greater demands on the condition of the track, roadbed, and structures along the line. As previously mentioned, the Federal Railroad Administration (FRA) has specified

the minimum standards for track which must be met depending on the maximum allowable speed desired. Standards pertain to gauge of rail, alignment, track surface, cross ties, spikes, laying of rail, inspection schedules, and defective rails. If a section of rail does not meet all the requirements for its intended class (see Appendix 9), it is reclassified to the next lowest class for which it does meet the requirements. Such a reduction would result in the attachment of "slow-orders" to movements in certain areas, and may result in a mandated halt to operations if Class I standards (10 miles per hour for freight) are not met. It is important, however, to note that most short-haul rail line operations are not dependent on high operating speeds to provide the types of service desired. In fact, there is rarely good reason to justify the running of trains at more than 15 to 25 miles per hour. Rather, one key to the success of such operations is emphasis on reliability rather than the length of time it takes to move a train from one point on the line to another.

4. *In-house Versus Contract Maintenance.* Any operation which is relatively small will find it economically difficult to perform all of its maintenance of way with available manpower and individually owned equipment. There are firms which will provide such service on a contract basis each year, but the costs usually will be lower if expertise of the independent operation is used where possible. Such outside contractors may be identified by consulting references such as the *Pocket List of Railroad Officials*, *Railway Age*, *Modern Railroads*, and *Railway Track and Structures*. While local persons having knowledge of the maintenance requirements may be able to offer valuable assistance and advice, connecting Class I carriers sometimes will perform necessary services on a for-hire arrangement. On an in-house basis, however, a person with a high degree of knowledge of maintenance requirements should be able to supervise a conscientious track crew to see that the job is done correctly. In terms of maintenance of way equipment, basic items should include picks and shovels, a tamper, and perhaps a tie machine and ballast regulator, if affordable. In addition, there may be sufficient justification to purchase a used flat car or perhaps a restructured gondola for purposes of transporting the equipment and labor force to the work site. Be cautious about

potential "over-buying" of maintenance-of-way equipment, particularly the more specialized types such as wrecking cranes, Jordan spreaders, and "Hi-Rail" vehicles. Frequently, such items are available as needed on a rental basis from connecting carriers or specialty firms.

5. *Regulatory Considerations.* As previously discussed, FRA track and safety standards apply to all full service and switching carriers, and must be adhered to in order to avoid interruptions in service. Also, railroads are subject to provisions of the Occupational Safety and Health Act (OSHA) regarding safety regulations. Finally, the operators of each line should determine the extent to which state and local regulations must be considered.

6. *Superintendence and Labor.* Requirements will vary from line to line, particularly as length of the line increases. Each line, however, should have at least one person who can be considered a "good track man," who should be capable of managing the work force necessary to accomplish the maintenance activity. Another point, to be discussed in more detail later, is the availability of a non-union labor force for maintenance of way purposes. When such exists, each worker may be used to perform a variety of tasks, without regard to the crossing of union "craft" lines. Particularly helpful is the situation which exists when train and engine crews are non-unionized and may be used for track maintenance purposes as the frequency of train service decreases, for example. The utilization of all personnel involved in this function, whether organized or not, should be done according to a conscientiously predetermined plan for the best results.

Maintenance of Equipment. Included here is maintenance of locomotives, freight-train cars, shop and power plant machinery, and other indirect maintenance of equipment expenses such as insurance and employee's health and welfare benefits. Major accounts within this category include Superintendence, Locomotive and Car Repairs, and Depreciation of Equipment.

Superintendence refers to the activities of officers and employees who manage and direct the maintenance of equipment activity. For costing purposes, it is also necessary to consider expenses associated with the conducting of related clerical and office activities. Locomotive repairs account for a substantial portion of ex-

penses in this category. A regular program of preventive maintenance is necessary to assure the relatively uninterrupted contributions of each power unit to the overall operating efficiency of the line. Typical locomotive components which require periodic checks and adjustments and repairs are the engine, motors, generators, air compressor, cooling system, and wheels and trucks. The category of freight car maintenance is more important for carriers having their own car supply than for those which do not. Included here are the costs of repairing freight-train cars and appurtenances, and the cost of repairing motor equipment affixed to freight-train cars engaged in transportation service. Finally, yearly expenditures for maintenance of equipment should include appropriate measures for depreciation of locomotives and freight cars.

It is quite important that locomotives and freight-cars are properly maintained in order to assure that they are capable of offering proper service to the shippers on each line. Such maintenance needs require expenditures of funds which may vary depending on decisions made regarding the following areas: (1) number and types of locomotives; (2) car ownership; (3) in-house versus contract maintenance of equipment; and (4) personnel.

1. *Number and Types of Locomotives.* This factor probably will be the most important determinant of expenditures in this category. Actually, the motive power decision is one which should be based on the type of service desired, but unfortunately, there can be severe inefficiencies associated with both too little and too much power. Failure to fully utilize the available locomotive freight-hauling capacity obviously results in an uneconomic allocation of resources, and it may cause operational problems as well. For example, too much power sometimes makes it difficult to detect minor derailments on moving trains. The result may literally be the "tearing up" of the right-of-way over a considerable stretch of track. On the other hand, insufficient power may cause undue strain on locomotive engines, with resulting shorter engine-life. The best decision, then, is to try to balance service needs (considering both present and future increases in traffic volumes) with the proper power rating for units employed.

The decision as to how many locomotives should be purchased or leased is a difficult one. A common piece of advice is that the independently-operated line should have at least two locomotives available for service. For those lines having operational needs for only one power unit, arrangements should be made with the connecting carrier or some other source to provide a backup unit for periods when the resident unit may be out-of-service. Such plans will help to avoid cessation of operations for lengthy periods of time. Depending on the type of service desired, some lines may require the use of two or more units in tandem.

Most locomotives today are diesel operated and have varying horsepower and wheel arrangements depending on the use for which they are designed. Lines needing switching capability along with limited-capacity line haul movements should consider such basic workhorses as the Whiting Trackmobile (which operates on both highway and rail) or a used General Electric 44-ton or a newer 100-ton locomotive. Considerably more tractive power can be obtained from a variety of units in the 1,000 to 1,500 horsepower range. The two major locomotive manufacturers are General Electric and the Electro-Motive Division of General Motors. The Montreal Locomotive Works also has supplied some units to U.S. carriers. Lines which haul commodities such as coal and sand, which are high in weight-density, may have to consider even more powerful units, and perhaps more than one or two depending on traffic volumes along the line and existing grades which must be traversed.

2. *Car Ownership.* As previously discussed, there is little need for most short-haul operators to have their own car supply. Prior to commencing operations, car supply should be an issue discussed at length with the connecting carrier(s). If the short line has its own cars, however, attention must be given regularly to the car body structure, doors, grab irons, ladders, and paint and stencils. Even more crucial areas include the couplers, trucks, and brake components. The typical light density line which happens to own no revenue producing cars will only need to maintain a minimum maintenance capability for one or two cars to be used for maintenance of way purposes.

3. *In-house versus Contract Maintenance of Locomotives.* Unless power equipment needs are extensive in terms of number and horsepower, many of the critical maintenance needs should be done by an outside contractor. The short line should arrange to send locomotives to the shop facilities of the connecting road for major repairs such as wheel turning and engine rewiring. Unless justified by the scope of operations, in-house maintenance of locomotives may require the keeping in inventory of an excessive number of spare parts which represent an added capital investment. Rather than invest heavily in machinery needed for filling all the maintenance needs of locomotives, it is advisable to have only sufficient expertise to handle routine repairs and replacements and permit the larger-scale work to be done elsewhere.

4. *Personnel.* A large percentage of the Class II railroads interviewed stated that a well-qualified master mechanic is absolutely essential to a short line's success due to the need to *minimize* the "down time" of the carrier's engine(s). If a local line cannot afford such a person full-time, it may be able to persuade a Class I employee to provide such assistance on a part-time basis. If labor contracts permit, members of the train crew may also be available to help with the maintenance of locomotives and any company owned freight cars.

Traffic. Expenditures in this category generally represent a very small percentage of total operating costs. In fact, about 11 percent of the carriers studied reported no traffic costs at all. When they are incurred, traffic expenses refer to activities such as advertising, soliciting, securing traffic for the carrier's lines, and preparation and distribution of tariffs governing such traffic.

There are three primary influences on expenditures related to the traffic function. First is the extent to which the carrier's service capability is promoted. It is necessary to sell the service which can be provided by the line itself and in connection with Class I carrier(s). Secondly, as was discussed in the revenue section, the way in which rates are made (and divisions agreed upon) will influence the extent to which an individual line will need to become involved in tariff preparation and publication. For carriers primarily performing a switching service with only limited line-haul responsibility, a switching fee

may be appropriate for revenue-determining purposes. In such cases, the applicable charges will be published in the tariffs of the connecting carrier. In situations where the local line fully participates in rate-making, the carrier must publish its own individual tariffs and/or participate in rate bureau activities.

Finally, as an originating carrier, activities such as preparation and issue of shipping documents, billing, collecting and paying accounts, routing, and tracing of shipments must be handled. Managers of such operations may arrange to have the connecting Class I carrier assume direct responsibility for many of such activities. A drawback to a short line's ability to provide effective traffic management is that its shipments are often relatively uncontrollable once delivered to the connecting carrier. Thus, to be successful, it is necessary for such operators not only to put forth an extra effort to serve their customers, but to work well with and have the full cooperation of the connecting carrier(s).

Transportation. This category includes those costs incurred in the process of transporting revenue-producing freight, including the expenses associated with stations, trains, yards, terminal service; and those related to transporting company material in transportation service trains. This expense category typically constitutes a fairly large portion of total operating expenses (30 to 45 percent) and must be managed effectively and efficiently in order to produce a financially viable light density line alternative. The most important component cost in this category is compensation for yard and train employees, averaging approximately 50 percent of the total transportation expense among the carriers studied. Expenses for superintendence and dispatching must also be incurred as part of the transportation function, dispatching referring to the activity which directs train movements. Train fuel (predominantly diesel) and other train expenses such as for lubricants, supplies, and special grade sand are also included. The latter is primarily used for tractive effort when heavy loads and steep grades are encountered.

Transportation expenditures are typically influenced by a variety of factors. Most important among these are: (1) scope of operations; (2) switching versus line-haul activity; and (3)

labor agreements and train crew sizes. Each will be discussed.

1. *Scope of Operations.* Because of the significance of labor costs, it is imperative that short line operations are conducted in as productive a manner as possible. Ways in which efficiency will be promoted are: prompt construction of train consists and timely dispatching; minimization of the time spent waiting by the train crew for cars to be loaded and readied for transport; the advance planning of work to be performed each day in order to meet the needs of shippers; and maintenance of consistent (not necessarily fast) operating speeds. The overriding objective, then, is to utilize the yard and train crew so that most of their clock time is involved with revenue-producing activity. It is an unfortunate fact, however, that service needs and traffic volumes on many light density lines are not sufficiently extensive to utilize the full capabilities of all employees at all times. In other cases, the scope of operations may justify the expenditures necessary to keep sizeable yard and train crews on the payroll. Although hours of service regulations provide for a maximum 12 hours of work per 24-hour day for train and engine personnel, a short-haul operation may apply to the ICC to extend maximum daily hours of service from 12 to either 14 or 16 hours in cases where there are fewer than 15 such employees. Such an arrangement, if granted the short line, should produce operating economies and flexibility.

2. *Switching Versus Line-Haul Responsibility.* The switching of cars is a necessary activity, but is generally secondary to road service or line-haul responsibility in terms of revenue production. There are lines, however, which do generate substantial revenues by performing intra-plant switches for shippers having particular needs for such services. In addition, agreements with connecting carriers regarding switching at interchange points may include increased responsibility for the short-haul carrier in return for higher revenue divisions or in lieu of per diem charges. The study of 1974 Annual Report data for 102 Class II carriers having gross freight revenues of less than \$1,000,000 showed that for the average carrier, about 25 percent of total locomotive unit-miles were for train and yard switching, as opposed to 75 percent for road service. Personal interviews with carrier per-

sonnel indicated that train and engine employees frequently spend 50 percent or more of their time performing switching activity. Where significant amounts of switching do take place, the transportation costs are likely to be relatively high.

3. *Labor Agreements and Train Crew Sizes.*

The issue of organized versus non-organized labor is of critical importance to the future owners of the types of lines under discussion. From the short line management viewpoint, three potentially negative conditions can result when operating employees are organized in some formal manner, particularly with reference to national rail labor agreements: higher wages than prevailing locally may have to be paid; the crossing of "craft" lines may be prohibited; and restrictive work rules together with dual or arbitrary pay allowances may be enforced. Alternatively, there are some benefits which typically accrue to lines using unionized personnel. Included are greater degrees of specialization among employees, and lower turnover rates due to the fact that the work force usually receives higher wages and greater forms of protection (e.g., pensions, hospitalization benefits, etc.) than in the case of non-unionized lines. It is an unfortunate reality, however, that many short-haul operations do not have the revenue-generating ability to afford organized labor.

If it is not possible to avoid a formal labor agreement, such an agreement should be negotiated on a local level. Smaller scale operations should take advantage of opportunities to negotiate informal agreements which would allow, for example, a maintenance of way employee to be used in train service if a brakeman is ill or on vacation, or allow train and engine employees and those involved with maintenance of the way and equipment to aid in correcting minor derailments. The single most important fact to be considered, regardless of whether employees are organized or not, is that many lines which are candidates for independent operation are not capable of financially supporting a team of specialists for every task to be accomplished. To this extent, employees should be relatively free to help out one another on an as-needed basis under competent managerial supervision.

Where operationally feasible, the size of train and engine crews may be reduced to achieve cost

savings. Train crews typically range in size from two (engineer and brakeman) to five (engineer, two brakemen, conductor, and fireman) and even six on longer lines with high traffic volumes, large train sizes, and national labor agreements. Differences in train crew size will depend on the scope of operations, location of the line, and operating requirements. Generally, a four-man crew consisting of one engineer, one conductor, and two brakemen (or switchmen) is recommended. In brief, it is the responsibility of the engineer to run the locomotive, of the conductor to perform such paperwork as is necessary and to direct car switches, and of the brakemen to perform the operations necessary to "cut" trains properly, pull switches, and to make sure car brakes are set. The necessity of having a second brakeman may sometimes be avoided by using two-way radios to communicate information between the engineer and conductor in the locomotive and a single brakeman on the ground. If union contract negotiations indicate that a fireman must be included among train and engine personnel, it is desirable from the short line point of view to write the provisions so that he may be allowed to help other members of the train crew with switching and road service responsibility and to perform the responsibilities of other members of the train and engine crew when they are ill. Finally, except for very long trains, it seems that there is little or no need to attach a caboose at the end for purposes of watching movements of the cars while the train is in motion. Limited-scale operations cannot economically justify the purchase and maintenance of the caboose.

Regardless of the existence of labor contracts or of the size of train and engine crews, most independently operated light density lines credit much of their success to a high esprit de corps among their employees. Great emphasis should be placed on the creation of a good working attitude in the employees, being sure to convey to each one the contribution which he or she can make to the overall objectives of the railroad.

General. Class II carrier annual report data indicated that on the average, approximately 70 percent of the general expense total is comprised of administration costs. Components of the administration category include: salaries and expenses of general officers, clerks, and attendants;

general office supplies; and legal expenses. Other notable expenses include insurance and other general expenses such as employees' health and welfare benefits, pensions, stationery, and printing.

Although general expenses typically constitute somewhere between 12 and 25 percent of railway operating expenses, there are a few factors which will affect the magnitude of such expenditures. In particular, they are: (1) managerial and supporting personnel; (2) legal and accounting; (3) ownership status; and (4) insurance.

1. *Managerial and Supporting Personnel.* Typical operations will not require a great number of top management people. Those one or two present, however, should be expert in the execution of sound business practices, and should have competent knowledge of and experience with railroad operating practices. Depending on the size of the operation, a small staff of clerical and supporting personnel should include a sufficient number to accomplish activities such as bill of lading issuance and freight bill preparation, other clerical responsibilities, and the management of employee payrolls and health and welfare benefits. There are some short line operations in which all managerial and clerical responsibility is handled by a single person. Those are obviously exceptional cases, but serve to emphasize an important fact that such activities do not primarily produce revenue, but exist to support revenue-producing activity. As such, expenditures in this area must be minimized.

2. *Legal and Accounting.* It is necessary to retain the services of competent legal aid to help resolve labor disputes and to represent the railroad in the event of legal suits regarding claims and liability. It is also necessary to have access to some formal accounting proficiency to fulfill reporting requirements of common carrier railroads.

3. *Ownership Status.* Lines which are owned by shippers or shipper groups, or which are owned or operated by some form of local government may be able to receive administrative support from the parent company or governmental unit. Alternatively, lines which are independently owned find it necessary to absorb the full cost of administration.

4. *Insurance.* Of the lines studied, nearly thirty percent had no insurance. This practice is not encouraged. The minimal coverage should include comprehensive liability coverage with \$10,000 or perhaps \$20,000 deductible. If insurance needs are not properly arranged, the result could be a single claim which could possibly exceed the total asset value of the railroad.

Railway Nonoperating Expenses. This major category is the final one to be considered in order to provide an understanding of the costs which are likely to be associated with the operation of a light density line independent of Class I ownership. As previously mentioned, the meaning of "nonoperating" should not be taken literally, as some of the cost components of this category do in fact vary with the scope of operations. The way in which they may be distinguished for purposes here is that they are types of costs which appear in the carriers' annual reports, but which are not classified for purposes of regulatory reporting as "Railway Operating Expenses." The specific categories to be discussed include tax accruals, net rents payable, and fixed charges.

Tax Accruals. Railroad taxation is currently a very controversial issue, and it is generally felt by industry officials that taxes on railway operations constitute disproportionately large percentages of railway income. Information collected from the financial statement of Class II line-haul carriers indicates that tax obligations account for approximately half (51 percent in 1972) of railway operating revenues net of railway operating expenses. Federal taxes accounted for approximately 75 percent of the total tax liability accrued. Primary components of such taxes included Federal corporate income taxes, payroll taxes for railroad retirement and for unemployment compensation. Although major types of state taxes include property, income or franchise, and sales and use taxes, others may also be applicable including gross receipt taxes, intangibles tax, privilege tax, and those on gas or fuel and licenses. (An excellent discussion of the states and rail taxation issues appears in Chapter 8 of *The States and Rural Rail Preservation*, by William R. Black and James F. Runke, Council of State Governments, 1975.) Local taxes primarily consist of taxes on real property.

Any potential operation should consider carefully the magnitudes of its tax responsibility in order to accurately assess the economic feasibility of the venture. To offer any general notions about tax levels, except to state that they are likely to be significant, perhaps would be misleading. A thorough evaluation of locally prevailing tax responsibility should be conducted for each light density line in question.

Net Rents Payable. The dollar magnitude of this expense category is actually computed by subtracting rent income from rents payable. The types of rents which are of most importance are: (1) hire of freight cars (per diem); and (2) locomotive, work equipment, and joint-facility rents. Following a discussion of each, it should be very evident as to why rents payable in total will quite likely exceed rent income for short-haul carriers.

1. *Hire of Freight Cars (Per Diem).* Although this topic was initially presented in the preceding discussion of revenues, it is important to understand the cost implications of the hire of freight cars. "Per diem" charges have been in existence since 1902, and serve the purposes of providing an incentive for the prompt return of freight cars to the railroad which owns them, and compensating the owning railroad while its cars are on the lines of other roads. The nature of per diem charges implies that a railroad receives a "rent" for each of its cars which is in the possession of another carrier, and correspondingly pays a rent for each "foreign" car which happens to be in its possession. Because most of the potential lines for which this Handbook is intended will not be car owners, it is necessary to understand how per diem charges are assessed and what opportunities exist to reduce the magnitude of such costs.

Per diem charges are currently based on a system which utilizes a "daily time charge" which varies depending on the age of each car and its cost, and a "charge per line-haul mile" which depends on the cost of the car. In addition, there is an additional "incentive charge" which depends on age of car and cost, and which is applicable on a variety of unequipped and general service boxcars. This charge has been established to reduce any reluctance on the part of terminating or delivering railroads to expeditiously release such cars. Car-hire rules are

established by the Association of American Railroads and are periodically published in tariff form in *The Official Railway Equipment Register*. These rules as they were in effect in January 1977 are included in Appendix 8.

There are two important ways in which short-haul operations may reduce the rents payable for car hire. The first is to minimize the time that "foreign" cars spend on the line. This may be accomplished by assuring that cars are promptly delivered to customers, that customers quickly unload such cars, and that cars are returned to the connecting carrier within the shortest amount of time possible. A second way is to take advantage of the provisions of Appendix B to the Statement of Car Hire Rules which includes rules governing settlement for the use of foreign railroad-owned freight cars by short line railroads less than 100 miles in length. In particular, Rule 6 of that Appendix states that such lines "... may appeal ... for partial relief from its car hire costs providing such costs are considered excessive compared to remuneration received for service rendered" As discussed previously, such "relief" may take the form of an increased number of free days or perhaps increased interchange switching responsibility by the short-haul carrier in lieu of per diem payments. Considering the fact that per diem payments typically account for 70 to 90 percent of rents payable by Class II carriers, efforts should be made to reduce this expenditure when possible.

2. *Locomotive, Work Equipment, and Joint-Facility Rents.* Factors which affect the necessity to rent locomotive power from other roads and to use work equipment belonging to others have received attention in the maintenance of equipment and maintenance of way discussions, respectively. In the case that a short-haul railroad shares in the use of facilities such as terminals and interchange track with other railroads, rents will either be payable or receivable depending on the ownership and use of such jointly-used facilities.

Fixed Charges. This category of expenditure will vary considerably depending on the type of debt financing used and on the extent to which rail property is owned or leased. The various types of fixed charges to be considered are interest payments which are associated with outstand-

ing obligations, yearly amortization of discounts on certain types of debt, and rents paid for the leasing of various types of rail property. To the extent to which expenditures for property acquisition and rehabilitation are to be financed by debt instruments, the yearly costs of such capital will influence the magnitude of the fixed charges.

Cost Estimation

Having discussed the types of costs which are of major importance and having gained an understanding of the factors which tend to have the greatest effects on such costs, it is now appropriate to consider some ideas related to estimation of those costs likely to be incurred. Although this section should help to construct a variety of preliminary cost estimates, it is *not* a substitute for execution of a detailed on-line investigation. Rather, its primary purpose is to provide a basis for an initial economic feasibility analysis of a proposed railroad venture.

It is strongly recommended that any cost estimation procedure be formally organized in some manner. A suggested procedure appears in Figure 1. Exhibited are the basic steps to be taken with regard to acquisition, rehabilitation, operating, and nonoperating costs. Details concerning estimation of each of these types of costs will be presented subsequently.

Acquisition. The nature of property to be acquired includes road, equipment, materials, and general and administrative. There are no general guidelines for estimating the total of acquisition costs, so it is necessary that each line determine its needs for the various types of property, and hence estimate costs accordingly. It is recommended that one or more professional appraisals be made of any property being considered for acquisition.

Expenditures for road property vary perhaps more than other such types of cost. For planning purposes, it is suggested that a range of \$20,000 to \$75,000 per mile be considered. Thus, a 10-mile branch may cost somewhere between \$200,000 and \$750,000. Some of the factors which will affect the actual purchase price are location (urban, suburban, or rural), previous ownership (solvent carrier, bankrupt carrier, or some other entity), physical condition, and revenue potential.

Locomotive power is the single most important equipment used. Small switching units (350 to 600 HP) are available for \$25,000 to \$100,000 used, while somewhat larger (1,200 HP) units will cost \$100,000 to \$175,000 and the largest units (2,000 and 3,000 HP) may be as high as \$250,000 to \$300,000. Although particular prices will vary, the expenditure for power units will by no means be inexpensive. In addition, it is frequently preferable to purchase (or lease) *used* equipment rather than *new* equipment because the prices are considerably lower in many cases, and also because the frequently substantial lead times necessary to procure new equipment may be avoided. Used equipment has its drawbacks too in that it may be expensive to rehabilitate and maintain. The purchase of units which are no longer being produced (e.g., those made by Baldwin and Fairbanks-Morse) is discouraged due to the difficulty with obtaining replacement parts.

It is necessary to purchase or at least have access to a variety of types of equipment, including those related to track repair, maintenance of way, and the maintenance of locomotives and freight cars. At a minimum, capital equipment should include a hand-held tamping machine (used units may be obtained for \$2,000 to \$5,000 and up while a new self-propelled unit may cost more than \$100,000), a tie machine (perhaps \$5,000 to \$10,000), and a ballast regulator. In order to avoid burdensome initial expenditures, consideration should be given to the possibility of leasing the more expensive types of equipment such as a back hoe for ditching, bulldozer, track gauging machine, and other more specialized types. The serious reader should contact suppliers of railway equipment for accurate estimates of purchase and lease costs depending on specific equipment needs. Publications which may be useful for identifying such suppliers include *The Pocket List of Railroad Officials*, *Railway Age*, *Modern Railroads*, and *Railway Track and Structures*.

As mentioned, it is not an easy task to develop a neat estimation procedure for acquisition costs, and the initial investment will be likely to exceed \$20,000 per mile *at a minimum*. The ability to absorb such "start-up" costs will depend on the financial assets of the acquiring entity and also its ability to obtain financing. If debt financing

FIGURE 1
ORGANIZATION FOR COST ESTIMATION

is used as a means of acquiring property, yearly cash flows must be able to generate sufficient funds to properly repay such debt, as well as cover the yearly operating and nonoperating costs.

Table 7.—Estimated Cost Per Mile of Upgrading and Maintaining Light Density Line to FRA Track Class I Standards¹

Year	Undiscounted Cost	Year	Undiscounted Cost
1	\$25,314	26	\$3,970
2	3,560	27	3,881
3	3,560	28	3,844
4	3,597	29	3,881
5	3,560	30	3,954
6	3,686	31	4,117
7	3,631	32	4,184
8	3,594	33	4,147
9	3,594	34	4,258
10	3,631	35	4,111
11	3,757	36	4,384
12	3,680	37	4,294
13	3,717	38	4,184
14	3,680	39	4,294
15	4,158	40	4,221
16	4,320	41	9,853
17	4,238	42	4,164
18	4,194	43	4,884
19	4,231	44	4,348
20	3,740	45	3,907
21	9,239	46	4,107
22	3,734	47	3,944
23	3,807	48	3,944
24	3,844	49	3,907
25	3,770	50	4,054

Rehabilitation. Once acquired, it is advisable to rehabilitate railroad property so that it is initially in some minimally acceptable condition. The cost of such improvement will depend on the condition of the line when acquired, and the desired condition. Although some lines may be in acceptable condition (FRA Class I or II at least), many light density lines have received little or no attention in recent years and thus will require large expenditures at the outset.

Although actual dollar costs are highly dependent on condition and therefore quite unpredictable without the knowledge of particulars, the United States Railway Association (USRA)

in its *Preliminary System Plan* developed an example which should be of interest here. The Association prepared estimates of the cost of upgrading a hypothetical line to meet FRA Class I standards and maintenance at that standard for a 50-year period. The results of that procedure are shown in Table 7 which shows the estimated cost *per mile* of upgrading and maintaining light density line to those standards. There are two sets of assumptions used by the United States Railway Association which are listed at the bottom of that table. Of the general assumptions, it should be noted that all costs throughout the suggested 50-year planning period are in terms of 1974 dollars, and hence do not account for inflationary impacts such as increases in the price of materials and labor. The specific assumptions listed indicate the details of rehabilitating this *hypothetical* light-density line to FRA Class I standards. If higher track standards were desired, the rehabilitation expense would be considerably greater. While the costs in Table 7 are only estimated averages, they do nevertheless indicate the range of light density line rehabilitation and maintenance costs per mile.

Assumptions:

General:

- Future labor, machine and material costs would remain at the third quarter 1974 level
- Costs are on a per mile basis
- No bridges or other structures exist on the line
- There is one grade crossing per mile
- There is one turn-out every 2 miles
- The line must be able to take any car in interchange with a minimum weight of 263,000–265,000 pounds per car
- The line handles less than 1 million gross ton-miles per mile per year

Upgrading to FRA Class I:

- Replace 400 ties per mile which assumes the existence of 240 good ties per mile; Class I standards require 640 good ties per mile.¹
- It costs \$37 to purchase and insert each tie
- Ties have a 30-year life
- Weld 10 rail ends per mile per year; there are 32 "short" rail ends per mile
- Replace two broken rail lengths per year (costed at three-fourths of the price of new rail)

Source: United States Railway Association. *Preliminary System Plan*, Volume II, 1975, pp. 348–349.

¹ FRA Class I track standards specify that there be a minimum of five non-defective timber ties per 39 feet of track, for a minimum total of 677 such ties per mile.

As with acquisition costs, those costs related to rehabilitation should be considered as initial investments, and the securing of appropriate financing will assure that the costs incurred are amortized over a relevant period of years. Once the line has been rehabilitated, yearly planned maintenance of way efforts should help to protect such an investment.

Operating Expenses. Estimation procedures for operating costs are more clearcut than those regarding acquisition and rehabilitation costs. This is because their magnitudes are more readily related to the nature and scope of the proposed operation. There are two basic sources from which such estimates were made available, the personal interviews and the analysis of carrier annual report data.

Interviews with the managerial and operating personnel of 60 Class II carriers resulted in the disclosure of a wide variety of information and advice which regarded operations. Although some discrepancies did exist from information provided by some carriers to that provided by others, there were many areas in which there was substantial agreement. To the extent that such ideas will aid in estimating operating expenses, they will be presented in this section.

Additionally, the operating expense data and other information regarding the nature and scope of operations were acquired from the *Form R-2 Annual Reports to the ICC* as filed by 148 Class II line-haul carriers for the year 1974. Because most of the potential operations for which this Handbook is intended will be unlikely to have extremely high revenue potential, the annual report data of all carriers showing gross freight revenues in 1974 of more than \$1,000,000 (46 carriers) were excluded from consideration. The data for the remaining 102 were statistically analyzed using multiple regression analysis. The results of the analysis for each operating expense category are presented for purposes of cost estimation. To estimate the various expenses it is necessary first to provide a preliminary estimate of certain information regarding each carrier: territory in which the line is located (see Figure 2); ownership status; main track mileage; tons of revenue freight to be carried; and an additional characteristic depending on the type of cost being estimated. Given this background information, an estimate of the magnitude in

dollars of each type of operating expense is available by referring to a table constructed for that purpose. Although estimates derived in such a manner are clearly based on historical information regarding costs as reported by the carriers studied, they are likely to be of use when attempting to evaluate the feasibility of a potential operation. To be in the most appropriate form, the cost estimates should be updated to reflect current year dollar costs. An example of how such adjustments may be made is included subsequently.

Maintenance of Way and Structures. A number of Class II carrier personnel suggested that expenditures necessary to maintain the rail line property, including crossings and signals, will run from \$3,500 to \$4,000 per year per mile of track operated. This assumes that the property has been rehabilitated initially and does not include costs associated with non-scheduled items such as switch replacement, construction of new turnouts, or major repairs to structures such as bridges and trestles.

Table 8 is designed to be used for the estimation of yearly expenditures in dollars for maintenance of way and structures. The information presented therein was derived from actual Class II carrier data for 1974 with the aid of computer-based estimation procedures. The same is true for tables numbered 9 through 13 which have been developed respective to other types of costs. Any estimates resulting from use of these tables should be adjusted to reflect current year costs.

In order to estimate the yearly expenditure for maintenance of way and structure for a certain rail line, it is necessary to know the main track mileage, the expected tons of revenue freight to be carried on the line, and the number of ties to be replaced per year. Reference back to Table 3 indicates that FRA Class I Track requires average tie replacement of 34 per mile per year; FRA Class II—54; and normalized—150 (each following an initial rehabilitation). For purposes of illustration, consider a 15 mile line over which 125,000 tons of revenue freight is expected to move per year, and that track standard desired is FRA Class II (average tie replacements of 54 per mile per year). The approximate row and column intersection in Table 8 indicates that an expenditure of \$49,000 should be expected for a line having such characteristics. The estimate

Figure 2.—Railroad Districts

Source: Interstate Commerce Commission, *Transport Statistics in the United States, 1974, Part I, Railroads*.

**Table 8.—Guide for Estimation of Expense Category:
Maintenance of Way and Structures**

	<i>Ties Replaced Per Mile Per Year</i>	<i>MAIN TRACK MILEAGE¹</i>				
		5	10	15	20	25
Annual Tons Revenue Freight <50,000	34 (FRA Class I) 54 (FRA Class II) 150 (Normalized)	\$ 8 12 31	\$22 26 45	\$36 40 59	\$49 53 72	\$63 67 86
Annual Tons Revenue Freight 50,000 –200,000	34 (FRA Class I) 54 (FRA Class II) 150 (Normalized)	17 21 40	31 35 54	45 49 68	58 62 81	72 76 95
Annual Tons Revenue Freight >200,000	34 (FRA Class I) 54 (FRA Class II) 150 (Normalized)	45 49 68	59 63 82	73 77 96	86 90 109	100 104 123

¹ Approximations may be made when actual main track mileage is not exactly 5, 10, 15, 20, or 25 miles.
Source: Class II Carrier Data Analysis (1974).

obtained in this manner is likely to differ somewhat from the rough \$3,500 to \$4,000 per mile figure. When this occurs it is preferable to include the higher of the two estimates for planning purposes. In this case, \$60,000 (i.e., \$4,000 per mile multiplied by 15 miles) would be considered more appropriate.

Maintenance of Equipment. Expenditures for equipment maintenance are not likely to vary as much as for maintenance of way and structures. This notion is supported by Table 9 which indicates that maintenance of equipment outlays will range from \$12,000 to \$44,000 per year depending on two factors. Of interest are tons of revenue freight carried and annual locomotive unit-miles. Locomotive unit-miles may be estimated based on operating frequency, length of line, and an adjustment for switching service. The following equation was developed for this purpose from the available Class II carrier data:

$$\begin{aligned}\text{Locomotive Unit-Miles} &= \text{Miles Road Service} + \\ &\quad \text{Miles Switching} \\ &= 2 \times L \times F \times 52 + (.35) \\ &\quad \times 2 \times L \times F \times 52 \\ &= (1.35) \times 2 \times L \times F \times 52\end{aligned}$$

where L=length of line in miles

2 x L=round-trip mileage

F=service frequency (round trips per week)

52=weeks per year

.35=an adjustment factor to account for average miles spent switching

For example, assuming that the hypothetical line discussed under maintenance of way provides service daily (Monday-Friday) over its 15 miles, total annual locomotive unit-miles would be estimated to equal 10,530. Reference to the appropriate row in Table 9 would provide an estimate under these conditions of \$36,000 to be spent per year for maintenance of equipment.

Traffic. Of the carriers studied, 87 percent allocated less than \$15,000 for this category of expenditure. In fact 11 percent showed no expenditures at all for traffic. Table 10 indicates that traffic expenses vary with territory in which located, ownership (either independent or industrial/shipper owned—publicly owned roads were too few to make generalized implications), tons of revenue freight, and number of connections. The latter refers to the number of other carriers

**Table 9.—Guide for Estimation of Expense
Category: Maintenance of Equipment**
(Thousands of Dollars Per Year)
1974 Dollars

	<i>Annual Locomotive Unit-Miles</i>	<i>All Carriers</i>
Annual		
Tons	<5,000	\$12
Revenue	5,000	
Freight	-10,000	21
<50,000	>10,000	34
Annual		
Tons	<5,000	14
Revenue	5,000	
Freight	-10,000	24
50,000	>10,000	36
-200,000		
Annual		
Tons	<5,000	22
Revenue	5,000	
Freight	-10,000	31
>200,000	>10,000	44

Source: Class II Carrier Data Analysis (1974)

with which interchanges of freight are possible, most likely no greater than three. To continue with our hypothetical line, let us assume that the carrier is located in the Eastern territory, is shipper-owned, and has two other carriers with which it connects. Reference to the table will indicate an estimate of \$6,000 for a 10-mile line. Since the example line is 15 miles long, traffic expenses are predicted to be \$6,875 (using the information provided in the first footnote to Table 10 to adjust for specific main track mileage).

Transportation. Discussions with carrier personnel indicated two "bare minimum" cost estimates for this category. They were: "\$1,800 and up per mile" and "\$2 per train-mile." The former suffers from the fact that it does not relate at all to traffic volume, while the latter simply appears to be too low. A much more realistic estimate was presented by the New York Department of Transportation in their study entitled *Short-Line Railroad Costs in New York State*. The relationship presented there is that trans-

Table 10.—Guide for Estimation of Expense Category: Traffic*

(Thousands of Dollars Per Year)

1974 Dollars

	Number of Connections	TERRITORY			
		Eastern or Western		Southern	
		Indep**	Indus**	Indep**	Indus**
Annual Tons	1	\$ 4	\$ 2	\$ 9	\$ 5
Revenue	2	9	5	13	10
Freight	3	13	10	18	14
<50,000					
Annual Tons	1	5	2	9	6
Revenue	2	9	6	14	10
Freight	3	14	10	18	15
50,000 -200,000					
Annual Tons	1	6	3	11	7
Revenue	2	11	7	15	12
Freight	3	15	12	20	16
>200,000					

* All values in this table are based on main track mileage equal to 10 miles. Adjustments for other main track mileages may be made by adding or subtracting 0.175 thousand dollars per mile from the numbers shown in this table.

** Ownership: "Indep" refers to carriers having ownership which is unrelated to on-line industry. "Indus" refers to carriers having ownership patterns which are closely related to on-line shippers or local industry.

Source: Class II Carrier Data Analysis (1974).
 portation expense equals \$12,000 + \$4 per locomotive unit-mile.

Table 11 shows the results of the Class II carrier data analysis which permit estimation of this category of expenditure. As can be seen, the range of possibilities is from \$21,000 to \$110,000 per year, depending upon location, tons of revenue freight, and locomotive unit-miles. Lower costs for carriers located in the Southern territory are indicative of lower prevailing wage levels than exist for Eastern or Western carriers. For the hypothetical Eastern district carrier, estimated transportation expenditures would be \$73,000.

General. Several short line managers agreed that general expenses may be roughly estimated as salaries of officers and nonoperating personnel

Table 11.—Guide for Estimation of Expense Category: Transportation

(Thousands of Dollars Per Year)

1974 Dollars

	Annual Locomotive Unit-Miles	Territory	
		Eastern or Western	Southern
Annual Tons	<5,000	\$ 21	\$ 5
Revenue	5,000		
Freight	-10,000	38	22
<50,000	>10,000	61	46
Annual Tons	<5,000	32	17
Revenue	5,000		
Freight	-10,000	49	33
50,000 -200,000	>10,000	73	57
Annual Tons	<5,000	70	54
Revenue	5,000		
Freight	-10,000	87	71
>200,000	>10,000	110	95

Source: Class II Carrier Data Analysis (1974).

plus 30 percent. This allowance includes an amount for office equipment, employee benefits, and legal and accounting expenses.

Table 12 indicates that this type of expense varies by tons of revenue freight and substantially by the administrative expenses. Mileage and ownership are not present in the table because the analysis did not indicate that they were helpful in explaining total general expenses. Assuming that our hypothetical carrier has planned administrative expenses of \$25,000, total general expenses are estimated at \$34,000.

The addition of the estimates for the various types of operating costs will produce the estimated grand total of railway operating expenses. For the case of the hypothetical carrier which has been under consideration:

Cost	Estimate
Maintenance of Way	\$ 60,000
Maintenance of Equipment	36,000
Traffic	6,875
Transportation	73,000
General	34,000
\$209,875 = Estimated Total Railway Operating Expenses	

Total Railway Operating Expenses. One other estimation procedure has been developed, and that allows an estimate of total railway operating expenses using only a single table. Such is the purpose of Table 13. It is not intended to substitute for the use of the five previous tables,

**Table 12.—Guide for Estimation of Expense
Category: General**

(Thousands of Dollars Per Year)

1974 Dollars

	<i>Annual Administration Expense</i>	<i>All Carriers</i>
Annual		
Tons	<\$10,000	\$11
Revenue	\$10,000	
Freight	-\$40,000	33
<50,000	>\$40,000	60
Annual		
Tons	<\$10,000	12
Revenue	\$10,000	
Freight	-\$40,000	34
50,000		
-200,000	>\$40,000	61
Annual		
Tons	<\$10,000	15
Revenue	\$10,000	
Freight	\$40,000	37
>200,000	>\$40,000	64

Source: Class II Carrier Data Analysis (1974).

but to supplement the procedure. Referring to Table 13, an overall estimate of total railway operating expenses for the hypothetical Eastern district line would be \$159,000 or \$50,875 lower than the sum of the individual cost estimates. In order to be conservative, it is recommended that the higher of the two be used, in this case \$209,875.

Cost Updating to Current Year Dollar Values. Since year 1974 carrier data was used to develop the estimation procedures discussed in this section, it is advisable to express the estimated total of railway operating expenses in current year dollar values. To do so will require the selection of an appropriate price index to be used for cost adjustment purposes. One such index is that which reflects railroad material prices and wages rates. Formally referred to as an "index of charge-out prices and wage rates," it is computed

by the Association of American Railroads and is available for various years as published in the AAR's annually-available *Yearbook of Railroad Facts*. The 1976 edition, for example, indicates on page 61 that the index of material prices and wage rates for 1974 was 186.8, and that it increased to 212.7 in 1975. Division of 212.7 by 186.8 results in a quotient of approximately 1.14, indicating an increase in prices of about 14 percent from 1974 to 1975. Referring back to the estimate of \$209,875 for total railway operating expenses of the hypothetical carrier, updating to 1975 levels would be accomplished by multiplying that figure by 1.14, for a total of \$239,258. Estimation for succeeding years may be accomplished by securing the appropriate price index information as it becomes available.

Nonoperating Expenses. The costs in this category represent those which must be subtracted from net revenue from railway operations to determine net income transferred to retained income. The following categories of nonoperating expenses are quite variable from line to line and do not lend themselves to accurate estimation without very specific details on the operation of the line.

Tax Accruals. Data from the Association of American Railroads indicates that taxes payable to state, county, and municipal governments vary widely, from less than \$500 per mile in 1972 for such states as Connecticut, New Hampshire, and South Dakota, to more than \$5,000 per mile in states such as California, Maryland, and Rhode Island. In 1972, the total tax accruals of all Class II line-haul railroad operations accounted for 51 percent of net revenues from railway operation (operating revenues minus operating expenses). Of this total, 75 percent represented tax obligations to the U.S. Government, while 25 percent were state or local in nature. Rather than offer a specific method to estimate tax accruals, it is recommended that state and local tax estimates be obtained, and that an additional allowance be made for applicable Federal taxes.

Net Rents Payable. Accurate estimates of per diem expenditures require knowledge of the types of foreign cars handled, the average periods of time for which they will be on the line in question, and whether any agreements have been reached with connecting carriers by the authority

of Appendix B, Rule 6 of the Car Hire Rules. Actual carrier experiences, however, suggest that per diem expenses are likely to be from five percent to eight percent of railway operating revenues.

Fixed Charges. The methods and extent of financing used will be the principal determinants of fixed charges. Without knowledge of specifics, there is no valid procedure for estimation of such costs.

Table 13.—Guide for Estimation of Expense
Category: Total Railway Operating
 (Thousands of Dollars Per Year)
 1974 Dollars

	<i>Ties Replaced Per Mile Per Year</i>	<i>MAIN TRACK MILEAGE¹</i>				
		<i>5</i>	<i>10</i>	<i>15</i>	<i>20</i>	<i>25</i>
Annual						
Tons	34 (FRA Class I)	\$ 62	\$ 86	\$110	\$135	\$159
Revenue	54 (FRA Class II)	67	91	115	139	163
Freight	150 (Normalized)	89	113	137	162	186
<50,000						
Annual						
Tons	34 (FRA Class I)	106	130	154	179	203
Revenue	54 (FRA Class II)	111	135	159	183	207
Freight	150 (Normalized)	133	157	181	206	230
50,000						
-200,000						
Annual						
Tons	34 (FRA Class I)	253	277	301	326	350
Revenue	54 (FRA Class II)	258	282	306	330	354
Freight	150 (Normalized)	280	304	328	353	377
>200,000						

¹ Approximations may be made when actual main track mileage is not exactly 5, 10, 15, 20 or 25 miles.

Source: Class II Carrier Data Analysis (1974).

Part IV: Evaluation and Implementation

Preceding portions of this Handbook have been devoted to detailed discussions of two general approaches to the preservation of local railroad service. The first (see Part II) enumerated and provided insight into a variety of alternatives which can lead to the continuance of existing light density branch line service as provided by the currently serving carrier. Although such possibilities are quite diverse, they share the common objective of retaining rail service in a manner identical or very similar to that which is currently available. The second approach (see Part III) basically differs in that it requires the provision of rail service over the line in question by some legal entity other than that which presently is obligated to serve shippers on the line. It is very important to consider that they both represent attempts to secure local rail service for the future, and that the merit of each approach should be carefully measured with respect to the merit of the other.

The issue of "who benefits" from some form of continuation will be of critical importance in assessing the feasibility of the various approaches. For example, it is often heard that "local interests" are concerned with preserving rail service in a particular area. A knowledge of the identity and sincerity of such "local interests" is likely to provide some valuable clues as to "who benefits," for it is quite likely that any group or person who would be unaffected by the loss of local rail service would be a prime motivator in preservation efforts. A classic illustration of conflicts of interest would include the small shipper who persuades city council to purchase and operate the lightly used branch line, when the loss of rail service would have in fact no adverse effects upon the local economy. An alternatively unfair circumstance would be the case where a local governmental authority encourages a traffic surcharge per carload to assure the long-run presence of the branch line, but neglects to recognize that this may be too much of a financial

burden on existing shippers, and that it will certainly discourage new industry from locating on the line. Although these two examples are exaggerated, they point out the necessity for those who benefit to share in the added costs.

The objectives of this part are: (1) to briefly discuss the nature of the benefit-cost analysis for the purpose of evaluating alternatives; and (2) to provide insights into how the various approaches may be implemented once a decision has been made as to the direction in which effort should be expended.

Benefit-Cost Analysis

The decision to implement or discard a particular strategy as an alternative to abandonment should be made on the basis of whether or not the likely benefits exceed their costs. Unfortunately, there are some inherent problems with the use of such a method. First, it may be difficult to identify all of the relevant benefits and costs. Second, it may be difficult, if not impossible in some cases, to measure each benefit and cost in some meaningful term such as dollar amounts. Third, there is no guarantee that those who benefit from service continuation will be those who bear the costs. As previously discussed, it is important that the beneficiaries be able to justify the sharing of the costs among themselves. Regardless of difficulties such as the above, the benefit-cost concept should prove to be a valuable tool in assessing the feasibility of alternatives to abandonment. If for no other reason, it may serve as a basis for organizing one's thoughts about the issue, and as an aid to assuring that all effects of rail service continuance or discontinuance are placed in proper perspective.

The range of relevant benefits and costs to be considered in such an analysis will differ substantially depending on the composition of so-called "local interests." The diversity of interests

of a local shipper and of a local governmental unit will provide an example.

Assume that the Ace Company is a shipper on a lightly-used branch line. Although it may wish to see service continued for a variety of reasons, it is possible that the products it ships are "rail captive," or that transportation expenses would be considerably higher if such products were shipped by some other mode such as truck. In the face of rail abandonment, Ace should be willing to incur additional costs as long as it can continue to move its products to the marketplace at a competitive "landed" cost, at the same time achieving a satisfactory rate of return on its investment. When the increases in costs associated with the retention of rail service become so great as to preclude the meeting of one or both objectives, Ace may not be able to justify its existence (or current location) any longer. The point to be made is that this particular shipper's ability to bear costs will be determined by the extent to which its objectives (notably financial, but others are appropriate too) remain uncompromised. Such an evaluation is substantially less difficult than that which must be undertaken by, for example, the municipality in which Ace is located.

The possible benefits and costs which must be addressed by a community investigating the impacts of rail service discontinuance are much more numerous. Table 14 presents a list of factors which are appropriate to consider. The table has been divided into three categories of impact—economic, social and environmental—and attention should be focused on each entry. The extent to which each factor is considered important will be dependent on the priorities of the particular community, but they all should be considered candidates for inclusion in the benefit-cost analysis. The feasibility of each alternative should be judged by whether its implementation would produce a net benefit or net cost considering the aggregate of all relevant factors. Although the complexity of such an undertaking may seem overwhelming, a conscientious effort aimed at investigating the effects of various alternatives to rail abandonment is necessary.

Local groups interested in preserving railroad service in its present form might benefit from reading the *Guide for Evaluating the Community*

Impact of Rail Service Discontinuance which was published in January 1975 by the Office of Public Counsel of the Rail Services Planning Office, Interstate Commerce Commission. Although developed as an aid to light density lines excluded from the Consolidated Rail Corpora-

Table 14.—Factors Important to a Comprehensive Community Benefit-Cost Analysis

A. ECONOMIC

1. Employment effects upon { rail employees
rail users
others
2. Income effects upon { individuals
businesses
3. Financial Aid
unemployment compensation
welfare benefits
retraining employees
4. Taxes—all governmental levels
income
sales
property
other
5. Transportation Costs
6. Costs of Locally-Purchased Goods
7. Other
potential for new industrial development
property values
alternative transportation modes

B. SOCIAL

1. Demographic Changes Affecting Population
2. Economic
diversity of economic base
skills of local labor force
3. Taxpayer costs

C. ENVIRONMENTAL FACTORS

1. Air Pollution
2. Land Pollution
3. Noise Pollution
4. Water Pollution

Source: Adapted from Interstate Commerce Commission, *Ex Parte* 293, "Continuation Subsidy Decisions," *Federal Register*, Vol. 40 (216), Washington, D.C.: U.S. Government Printing Office, November 7, 1975, pp. 52213-52214.

tion, its contents indicate the various types of data which are needed to make a valid assessment of the value of continued local rail service.

Implementation of Alternatives to Abandonment

Although the alternatives to be considered have been divided into two categories, those which lead to preservation of current service and those which involve creation of a new form of operation, it is quite likely that the approach to be followed will incorporate several alternatives simultaneously. For example, creation of an independent short line railroad may seem feasible, but will be even more attractive if accompanied by carloading increases by shippers and by some form of tax relief. It is absolutely necessary that each approach be subjected to a separate, rigorous scrutiny, but the overall objectives in fact may be best achieved with some combination of possibilities.

It is the objective of this section to discuss the consideration which must be made when attempting to implement each of the alternatives. The order of presentation will generally follow the order in which the approaches were developed in Parts II and III, respectively.

Continuation of Current Service

There are a variety of methods which have been employed to preserve rail service in essentially its current form of operation. Discussed at length in Part II, such possibilities are quite diverse, ranging from ways to increase branch line revenues and decrease branch line costs, to schemes involving shipper participation, subsidies from various governmental levels and organizations, and massive state efforts such as evidenced by the Iowa program.

It is difficult, for several reasons, to try to describe an orderly process by which such alternatives may be implemented. First, the variation among such approaches is too great to justify presenting a common framework within which each would fit neatly, and which would provide the reader with "all the necessary steps." Second, the manner in which such approaches are exploited most effectively will vary from area-to-area, depending on the nature of the rail service to be performed, the currently serving carrier, and the composition of the particular "local

group" which is interested in preserving light density line service. Third, the types of innovative efforts attempted will increase in number as more local groups become involved in rail preservation efforts.

The organization of this section, therefore, is developed around five particular areas of interest which must be given careful consideration before any of the approaches is likely to succeed. They are: (1) the desire to preserve local railroad service; (2) knowledge of the real potential of a line; (3) difference between the short-run and the long-run objectives; (4) obtaining legal counsel; and (5) contacting the appropriate persons and agencies for help.

Does a need truly exist to justify the retention of rail service in its present form? The relevant fact is that many shippers and communities would like to see service continued simply because it has been available for a number of years and it does not seem reasonable to lose it. Such thinking is only justifiable in cases where communities are actively attempting to encourage rail-oriented industrial firms to locate on the particular lightly-used line. In cases like this, it only seems fair that the local community or interest group itself bear all additional costs of rail service retention for an "interim" period of time.

There are other instances in which implementation of such alternatives may be more realistically justified. Shippers who have a need to transport products which are "rail captive" may face business failure if service is not retained. The extent to which such types of traffic should receive some form of subsidy (or perhaps pay additional charges) should be carefully determined on the basis of a sound financial analysis. For those shippers having needs which may be satisfied by modes other than rail, a preliminary effort should seriously consider the cost and service characteristics of the present versus alternative means of transportation.

The major point to be considered is that rail service continuation efforts should be justified by a real economic need for such service. When this does not exist, it is unfair to solicit the aid of groups and programs for the preservation of such non-essential rail service.

Efforts should be devoted at the local level to *determine an objective projection of future rail*

needs in the area. Important factors to consider are the future traffic which will be diverted from other modes to rail, possible traffic volume increases by individual shippers, and the attraction of new industry. Traffic projections must be made on the basis of sound analysis, rather than on notions such as "carloadings will definitely increase in the future." Meaningful negotiations with various groups, particularly Class I carriers, will require valid projections. Although such groups additionally may make their own estimates of traffic growth potential, a well-prepared group of local interests is more likely to make a favorable impression than one which has spent no time investigating the true nature of the problem.

The analysis of a line's potential should be careful to *distinguish between long-run and short-run objectives*. The most justifiable of rail service preservation efforts are those which pertain to the long-run economic interests of the particular local area. As previously mentioned, for example, Section 803 of the Railroad Revitalization and Regulatory Reform Act of 1976 (Appendix 1) requires that a variety of community effects related to rail service discontinuance be evaluated before any rail line is considered eligible for Federal subsidy. Such efforts must be considered over a period of years, and are not limited to the immediate future. It can be argued that any solution which is capable only of solving short-run problems is not really a solution at all, and that the best alternatives to consider are those which will have beneficial effects on the interests of local areas for a number of years.

Due to the fact that contractual agreements are an integral part of some of the efforts discussed pertaining to the retention of the existing form of rail service, *competent legal counsel should be available and retained*.

It is most important to thoroughly review the qualification of all persons such as lawyers and consultants whose aid may be necessary and who are likely to charge a fee for their services. It may be necessary to "shop around" to secure counsel with experience in dealing with major railroads, applicable railroad accounting procedures, or the general practice of transportation law.

Establishing contact with appropriate agencies and persons will aid the implementation of various alternatives to abandonment. One of the problems associated with carrying out programs which require the participation of large railroad companies is that much such companies are not staffed to respond to innovative requests. Unless the railroad involved has a specifically designated department to handle such requests, it is best to contact the departments most likely to be interested in retaining carloadings, preferably the traffic, sales or marketing department. A list of possible references to large carrier contacts has been included in Appendix 9. Information regarding regulatory factors may be obtained from the Interstate Commerce Commission or from appropriate state regulatory agencies as listed in Appendix 5. Likewise, many states have Departments of Transportation, which in addition to the U.S. Department of Transportation, may be of valuable assistance. References are provided in Appendix 2. For those alternatives which have some effect on organized labor, contact must be made with representatives of the unions involved to assess the overall feasibility of the proposed approach. Governmental subsidy information is available through the appropriate agencies.

As previously mentioned, it is difficult to define a rigorous procedure which will be appropriate to the implementation of the wide variety of alternatives suggested in Part II of this Handbook. Hopefully, however, sufficient insight has been provided to assess the potential feasibility of a number of approaches which may be taken to preserve rail service in the presently existing form.

The Independent Railroad Alternative

The second major approach to the future provision of local rail service is that involving operation of the line by some entity other than the currently serving carrier. To state that all such alternatives are "short line" railroads may be misleading, for there are a variety of available definitions as to what constitutes a short line railroad. These range from a definition which includes only "full-service common carriers by rail which have operating revenues of less than \$10,000,000 per year" to one which states that "any railroad less than 100 miles in length is a

short line." The important fact to be considered when assessing "independent-service" opportunities is that they all generally share the same types of operating considerations. This will hold true with only slight variations depending on the legal type of service to be provided and on the particular form of ownership chosen.

Although it was the primary interest of Part III of this Handbook to explain the nature of and factors important to the independent provision of light density line service, there were two underlying thoughts of great importance. First is that the implementation of alternatives in this category will require an extraordinary amount of dedication and effort by local interests who are committed to the preservation of railroad service. Second is that such approaches tend to be capital intensive, implying that interested groups should be capable of providing at least a *minimal* amount of initial financial assistance. Such expenditures, as previously discussed, may represent *considerable* financial commitments.

The first decisions to be made regarding implementation of alternatives in this category include the legal type of service to be provided and the form of ownership. Although both of these will be discussed in the following paragraphs, the decision made with respect to one probably will be dependent upon that made regarding the other.

Legal Form of Service. An independent operation may be legally classified as either: (1) a full-service common carrier; (2) a switching and terminal operation; or (3) a private railroad. Implementation of each of these will be affected by the types of service desired, the extent to which each is regulated by law and the form of ownership selected.

Full-service common carriers are typically obligated to provide a wide variety of services. Included would be the origination or termination of through movements of freight, through billing and routing, charging demurrage, preparing waybills, filing reports with weighing inspection bureaus, and putting cars in service. Because such carriers are parties to the publishing in tariffs of through rates and charges for particular services offered, it is likely that they will participate in the process of tariff preparation, and may even find it necessary to publish their own tariffs. There are four steps which must be

taken to meet such responsibility: (1) shippers and other railroads must be informed of the rates and charges to be assessed; (2) negotiated agreements must be reached between these parties; (3) proposals should be presented to and agreed upon by applicable rate bureaus (although rate bureau rejection of a proposal does not preclude the carrier's right to independent action concerning the publication of rates); and (4) tariffs must be filed with and subject to the approval of the Interstate Commerce Commission or the appropriate state regulatory commission depending on whether the movements are interstate or intrastate respectively. Appendix 5 contains a list of addresses of the various state regulatory commissions.

Operations wanting to achieve the legal status of a full-service common carrier must be issued a Certificate of Public Convenience and Necessity by the Interstate Commerce Commission to participate in the interstate movements of freight. In order to obtain the authority to construct, extend, acquire, or operate such lines, it is necessary to prove that the service to be provided constitutes a public necessity, and that the proposed operation will be able to adequately provide the service. Regulations concerning the special procedures which must be followed in order to obtain such a certificate have been reproduced in Appendix 7. Various sections which will be of interest pertain to: (1) the information to be contained in such applications; (2) the execution, filing, and disposal of the application; (3) required form and style; (4) public notice of application; (5) general instructions regarding return of the questionnaire; (6) other required questionnaire information; (7) exhibits required; and (8) necessary verification. It is important to recognize that once an operation has been issued such a certificate, it is legally obligated to provide service on a non-discriminatory basis, and that such service may not be withdrawn or discontinued without proper authority to do so. Regulations regarding applications for intrastate operating authority are available from the various state regulatory commissions (see Appendix 5).

The form of ownership will bear a relationship to the legal form of service to be offered. A full-service common carrier must provide service to all shippers on a given line, not necessarily limiting such to those having some form of own-

ership involvement. Additional detail will be developed in the subsequent section which discusses ownership.

The *switching or terminal carrier* exists for the purpose of providing the originating or terminating switch for cars moving from or to points on its line, respectively. It is not a line-haul carrier, and is not considered a participating carrier for purposes of routing through movements of freight. As such, the switching or terminal operation is best considered as an agent of the connecting line-haul carrier which simply picks up or delivers cars as necessary. Although this type of carrier files and publishes appropriate switching charges with the ICC, there is no participation by switching and terminal carriers in the rate-making activities of rate bureaus. Switching charges are assessed on a per car basis, and are not related to the line-haul charges assessed the through movements of freight. This type of carrier simply originates or terminates cars and bills the connecting carrier accordingly. Because such operations usually exist to serve the shipping public at points on its line, switching and terminal lines represent another form of common carrier by rail, and consequently must be issued a Certificate of Public Convenience and Necessity by the Interstate Commerce Commission. Although the application procedure is similar to that required of full-service carriers, it is considered substantially less complicated due to the limited scope of responsibility of this type of carrier. When such a legal form is being considered, it also may be appropriate to rely upon the connecting line-haul carrier to develop a substantial portion of the data and justification necessary for application.

The *private railroad* is the least restrictive of all legal forms. It exists for the single purpose of providing transportation service for the owner or owners, and as such does not hold itself out to serve the general public. Because it is not legally classified as a common carrier, there is no need to obtain a Certificate of Public Convenience and Necessity. Such an operation is strictly prohibited, however, from serving the needs of other non-owning shippers along the line. Before the private railroad alternative is seriously considered for implementation, local interests should be assured by the ICC that the nature of such an operation does not in any way suggest the existence of common carriage as discussed in Part III.

Such a determination is necessary for the protection of the financial interests of the owners of the line.

Ownership. There are essentially three types of ownership status which should be given consideration: (1) independent; (2) shipper or industry; and (3) governmental. It is important to assess each of these possibilities keeping in mind the particular group(s) to which the principal benefits of rail service continuation will accrue. Regardless of which alternative appears most interesting, the retention of competent legal counsel will be an absolute necessity.

Independently-owned lines are those which are unrelated in terms of ownership to the shippers located along them or to existing local governmental units. Although this type of operation may rely upon shipper and/or community assistance to provide adequate rail service, its principal reason for existence is most likely to achieve a reasonable return on the investment made by the owners. Independent-ownership interests often are developed for the purpose of helping to attract new industry to a particular area. When such is the case, owners of an even financially marginal rail operation may be able to make substantial capital gains on the sale of any nearby or adjacent land which they own and which has a potential for industrial development.

The exact form of ownership for an independently-owned line may take several forms. The most basic form is that of a sole proprietorship in which complete control is vested in a single person. Unfortunately, such an individual will find himself personally liable for any business losses incurred. The same is true regarding the many forms of partnerships which may be employed. It is also relevant to consider that the life spans of sole proprietorships and partnerships are limited to the length of life of the principal(s).

Although it is subjected to greater degrees of regulation by state and local governments, the corporation represents perhaps the most appropriate form of legal ownership for operations designed to provide light density line railroad service. In such cases the stockholders (owners) have limited liability, and the corporation itself will have a predetermined or perhaps indefinite life. Each state has its own set of laws regarding incorporation, and those of the particular state

in which the line in question is located should be studied.

Shipper-owned light density rail lines present an interesting approach to service preservation. Such lines sometimes are willing to operate at a loss, providing that such a deficit is not greater than the incremental cost associated with moving the freight by another mode, for example, truck.

There are a number of operations in which the major shipper on a line has purchased the railroad to assure that such service will be retained in the future. As a precondition to building a new plant along a lightly-used, yet independently-owned line, owners of a certain manufacturing facility required that they be offered 51 percent of the financial interest in the line so that they could have control over its future. Such control was acquired, and that major shipper currently owns controlling interest in a common carrier short line railroad, the continued operation of which is absolutely critical to the long-run profitability of its plant operations at that site.

The cooperative association is an attractive form of ownership to consider when there is a small group of shippers who would experience substantial adverse effects if rail service were discontinued. Options regarding this alternative range from complete operation of the line by such a group to the purchase of right-of-way alone with the leasing of operations to an independent company. While it is necessary to arrange details concerning funding requirements among the owning shippers, any losses incurred are likely to be fully tax-deductible as a cost of doing business.

Public ownership is yet another possibility which should be thoroughly investigated. Although such an arrangement may involve municipal or state ownership of a corporation which provides the necessary rail service, the option of direct operation by a municipal department is also a possibility. Such alternatives are particularly viable when service must be continued to meet the needs of the community, yet deficit operations are unavoidable.

R. L. Banks and Associates, Inc. provided an excellent discussion of the governmental-unit form of ownership in their 1974 report to the Federal Railroad Administration entitled *Short*

Line Techniques to Improve Financial Viability of Light Density Lines—Major Railroads. They cite such advantages as:

1. The provisions of recent railroad legislation (P.L. 93-236) allow Federal subsidies to be received for lines owned by states or municipalities;
2. Access to credit is substantially increased due to the security of the taxing power and the tax-exempt status of municipal bonds;
3. Exemption from income taxes; and
4. Exemption from state and municipal property taxes.

An additional reference which should be consulted is "The Experience with Municipal Operation of Railway Lines" by John F. Due. The article appeared in the Summer 1975 issue of the *Transportation Journal* (published by the American Society of Traffic and Transportation), and discusses the three municipally-operated intercity railroad lines in this country. Major features of such lines include the facts that they aid economic development, permit the adjustment of railway policy in terms of local community interests, and allow deficits to be absorbed by the beneficiaries of service retention—the local citizens.

Municipal participation in the preservation of local rail service via an ownership interest will not necessarily require involvement in all operating aspects of the service to be provided. The option of leasing the responsibility for operations to another group should be considered following municipal acquisition of all rail-related property, or perhaps the right-of-way alone if other property is not acquired. Regardless of the approach taken, however, the ultimate success or failure of the venture will be highly dependent upon the sincerity and commitment exhibited by the local governing unit.

The Future of Light Density Rail Line Service

This Handbook has attempted to present a variety of alternatives which should be considered when attempting to preserve an existing railroad service or provide such service by some entity other than the currently serving carrier. Although there are no specific "rules" to be followed regarding the decisions to be made, advice

which may be pertinent has been introduced. The sources for many of the ideas presented were those individuals who are actually in the business of providing such types of service. The syntheses, interpretations, and evaluations of those ideas, however, were solely the responsibilities of the authors. Although the preceding discussions contain a variety of hopefully valu-

able information, the reading of this text alone will not guarantee success. It should, however, provide each local group with a means to assess its available inventory of interest, financial resources, and personal commitment; all of which in substantial amounts are necessary components of a successful venture to preserve a light density rail line.

APPENDIX 1

SECTION 803: LOCAL RAIL SERVICE ASSISTANCE

Public Law 94-210
94th Congress, S. 2718
February 5, 1976

An Act

To improve the quality of rail services in the United States through regulatory reform, coordination of rail services and facilities, and rehabilitation and improvement financing, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act, divided into titles and sections according to the following table of contents, may be cited as the "Railroad Revitalization and Regulatory Reform Act of 1976":

Railroad
Revitalization
and
Regulatory
Reform Act
of 1976.
45 USC 801
note.

LOCAL RAIL SERVICE ASSISTANCE

SEC. 803. Section 5 of the Department of Transportation Act, as added by section 401 of this Act (49 U.S.C. 1654), is amended by adding at the end thereof the following 10 new subsections:

"(f) The Secretary shall, in accordance with this section, provide financial assistance to States for rail freight assistance programs that are designed to cover—

"(1) the cost of rail service continuation payments;

"(2) the cost of purchasing a line of railroad or other rail properties to maintain existing or provide for future rail service;

"(3) the cost of rehabilitating and improving rail properties on a line of railroad to the extent necessary to permit adequate and efficient rail freight service on such line; and

"(4) the cost of reducing the costs of lost rail service in a manner less expensive than continuing rail service.

"(g) The Federal share of the costs of any rail service assistance program shall be as follows: (1) 100 percent for the period from July 1, 1976 to June 30, 1977; (2) 90 percent for the period from July 1, 1977 to June 30, 1978; (3) 80 percent for the period from

Federal
share.

July 1, 1978 to June 30, 1979; and (4) 70 percent for the period from July 1, 1979 to June 30, 1981. For the period from July 1, 1979 to June 30, 1981, the Secretary may make such adjustments in the percentage level of the Federal share as may be necessary and appropriate so as not to exceed the maximum amount of funds authorized under subsection (o) of this section. The Secretary shall, within 1 year after the date of enactment of this subsection, promulgate standards and procedures under which the State share of such cost may be provided through in-kind benefits such as forgiveness of taxes, trackage rights, and facilities which would not otherwise be provided.

"(h) Each State which is, pursuant to subsection (j) of this section, eligible to receive rail service assistance is entitled to an amount equal to the total amount authorized and appropriated for such purpose, multiplied by a fraction whose numerator is the rail mileage in such State which is eligible for rail service assistance under this section and whose denominator is the rail mileage in all of the States which are eligible for rail service assistance under this section. Notwithstanding the provisions of the preceding sentence, the entitlement of each State shall not be less than 1 percent of the funds appropriated. For purposes of this subsection, rail mileage shall be measured by the Secretary, in consultation with the Interstate Commerce Commission. Any portion of the entitlement of any State which is withheld, in accordance with this section, and any such sums which are not used or committed by a State shall be reallocated immediately, to the extent practicable, among the other States, in accordance with the formula set forth in the first sentence of this subsection.

"(i) Rail service assistance to which a State is entitled under this section may be allocated by such State to meet the cost of establishing and implementing the State rail plan required by subsection (j) of this section or by section 402(c)(1) of the Regional Rail Reorganization Act of 1973 (45 U.S.C. 762(c)(1)). Such grants shall be made available by the Secretary during the course of the State rail planning process, and shall be distributed by the Secretary as needed by the States. The amount of State rail planning grants to which each State (including each State referred to in subsection (n)(1) of this section) is entitled shall be proportionate to the amount of rail service assistance to which such State is entitled under this Act.

"(j) A State is eligible to receive rail service assistance from the Secretary if— **Eligibility.**

"(1) such State has established an adequate plan for rail services in such State as part of an overall planning process for all transportation services in such State, including a suitable process for updating, revising, and amending such plan;

"(2) such State plan is administered or coordinated by a designated State agency and provides for the equitable distribution of resources;

"(3) such State agency (A) has authority and administrative jurisdiction to develop, promote, supervise, and support safe, adequate, and efficient rail transportation services, (B) employs or will employ, directly or indirectly, sufficient trained and qualified personnel, (C) maintains or will maintain adequate programs of investigation, research, promotion, and development, with provisions for public participation, and (D) is designated and directed solely, or in cooperation with other State agencies to take all practicable steps to improve transportation safety and to reduce transportation-related energy utilization and pollution;

"(4) such State provides satisfactory assurance that it has or will adopt and maintain adequate procedures for financial control,

accounting, and performance evaluation in order to assure proper use of Federal funds; and

"(5) such State complies with regulations of the Secretary issued under this section and the Secretary determines that such State meets or exceeds the requirements of paragraphs (1) through (4) of this subsection.

"(k) A project is eligible in any year for financial assistance from the applicable rail service assistance program only if—

"(1) (A) the Commission has found that the public convenience and necessity permit the abandonment of, or the discontinuance of rail service on, the line of railroad which is related to such project, or (B) the line of railroad or related project was eligible for assistance under title IV of the Regional Rail Reorganization Act of 1973; and

"(2) such line, or related projects, has not previously been the subject of Federal rail service assistance under this section for more than 5 fiscal years.

"(1) The Secretary shall pay to each eligible State an amount equal to its entitlement under subsection (h) of this section, to be expended or committed to one or more projects which are eligible, pursuant to subsection (k) of this section.

**Recordkeep-
ing.**

"(m) (1) Each recipient of financial assistance under subsections (e) through (o) of this section, whether in the form of grants, subgrants, contracts, subcontracts, or other arrangements, shall keep such records as the Secretary shall prescribe including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance was given or used, the amount of that portion of the cost of the project which was supplied by other sources, and such other records as will facilitate an effective audit. Such records shall be maintained for 3 years after the completion of such a project or undertaking.

Audit.

"(2) The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access, for the purpose of audit and examination, to any books, documents, papers, and records of receipts which, in the opinion of the Secretary or of the Comptroller General may be related or pertinent to the grants, contracts, or other arrangements referred to in paragraph (1) of this subsection.

"(3) The Secretary and the Comptroller General shall regularly conduct, or cause to be conducted—

"(A) a financial audit, in accordance with generally accepted auditing standards; and

"(B) a performance audit of the activities and transactions assisted under this section, in accordance with generally accepted management principles.

Such audits may be conducted by independent certified or licensed public accountants and management consultants approved by the Secretary and the Comptroller General, and they shall be conducted in accordance with such rules and regulations as may be prescribed by the Comptroller General.

**Rules and
regulations.**

"State, "

"(n) As used in this section, the term 'State' means—

"(1) during the period from the date of enactment of this subsection through the second anniversary of the date on which rail properties are conveyed pursuant to section 303(b)(1) of the Regional Rail Reorganization Act of 1973 (45 U.S.C. 743(b)(1)), any State in which a carrier by railroad subject to part I of the Interstate Commerce Act maintains any line of railroad,

49 USC 1.

except that the term shall not include the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Ohio, Indiana, Michigan, and Illinois, and the District of Columbia; and

"(2) during the period following the second anniversary of the date on which rail properties are conveyed pursuant to such section 303(b)(1), any State in which a carrier by railroad subject to part I of the Interstate Commerce Act maintains any line of railroad.

45 USC 743.

"(o) There are authorized to be appropriated to the Secretary for the purposes of subsections (f) through (o) of this section not to exceed \$360,000,000, without fiscal year limitation. Of the foregoing sums, not to exceed \$5,000,000 shall be made available for planning grants during each of the 3 fiscal years ending June 30, 1976; September 30, 1977; and September 30, 1978. In addition, any appropriated sums remaining after the repeal of section 402 of the Regional Rail Reorganization Act of 1973 are authorized to remain available to the Secretary for purposes of subsections (f) through (o) of this section. Such sums as are appropriated are authorized to remain available until expended."

Appropriation
authorization.

45 USC 762.

APPENDIX 2

STATE DEPARTMENTS OF TRANSPORTATION

Arizona Department of
Transportation
206 South 17th Avenue
Phoenix, Arizona 85007

Department of Transportation
P.O. Box 1139
Sacramento, California 95805

Connecticut Department of
Transportation
24 Wolcott Hill Road
Wethersfield, Connecticut
06109

Department of Highways and
Transportation
Highway Administration Center
P.O. Box 778
Dover, Delaware 19901

Department of Transportation
Burns Building
605 Suwannee Street
Tallahassee, Florida 32304

Department of Transportation
2 Capitol Square
Atlanta, Georgia 30334

Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813

Department of Transportation
Transportation Administration
Building
2300 South Dirksen Parkway
Springfield, Illinois 62764

Iowa Department of
Transportation
826 Lincoln Way
Ames, Iowa 50010

Kansas Department of
Transportation
State Office Building
Topeka, Kansas 66612

Department of Transportation
State Office Building
High Street
Frankfort, Kentucky 40601

Department of Transportation
State Office Building
Augusta, Maine 04330

Maryland Department of Transportation
Baltimore - Washington International
Airport
P.O. Box 8755
Baltimore, Maryland 21240

Massachusetts Department of Public
Works
100 Nashua Street
Boston, Massachusetts 02114

Michigan Department of State Highways
and Transportation
State Highways Building
425 West Ottawa
Post Office Drawer K
Lansing, Michigan 48904

Missouri State Highway Commission
State Highway Building
Jefferson City, Missouri 65101

State Department of Transportation
1035 Parkway Avenue
Trenton, New Jersey 08625

Department of Transportation
1220 Washington Avenue
Albany, New York 12232

Department of Transportation
P.O. Box 25201
Raleigh, North Carolina 27611

Ohio Department of Transportation
25 S. Front Street
Columbus, Ohio 43215

Department of Transportation
State Highway Building
Salem, Oregon 97310

Pennsylvania Department of Transpor-
tation
Transportation & Safety Building
Commonwealth and Forster Streets
Harrisburg, Pennsylvania 17120

Department of Transportation
State Office Building
Providence, Rhode Island 02903

Department of Transportation
Pierre, South Dakota 57501

Department of Transportation
State Office Building
Salt Lake City, Utah 84114

Department of Transportation
State Office Building
4802 Shelboygan Avenue
Madison, Wisconsin 53702

APPENDIX 3

SOURCES OF FUNDS: DEVELOPING A FINANCIAL PLAN

Source: Interstate Commerce Commission, EX PARTE No. 293
(Sub. No. 6) - Continuation Subsidy Decisions,
Federal Register, Vol. 40, No. 216 (November 7,
1975), Washington, D.C.: U. S. Government
Printing Office, pp. 52211-52213.

I. SOURCES OF FUNDS: DEVELOPING A FINANCIAL PLAN

The financing approach to continuing rail service should be coordinated with whatever operating approach is selected by the community and rail users. However, sufficient latitude exists to permit innovative financial solutions. Communities and rail users have many opportunities to minimize their financial involvement by utilizing various investment techniques. This section will discuss private financing, public financing and non-cash inducements for continued rail service.

I.1. PRIVATE FINANCING

Many programs of continued rail service will rely, at least in part, upon private sources of funds. Private financing may be available because of specific private interests or because of incentives in the private capital markets. A program which establishes a business enterprise will require financing of working capital, fixed infrastructure and an ownership interest. For example, a short line railroad may need to establish a line of credit with a commercial bank in order to secure working capital for its day-to-day operations. The right of way and fixed plant may be financed by bonds or mortgages. Equity capital can be sold to distribute ownership shares.

Local and State government entities may undertake programs to attract private funds with inducements such as:

Leases, tax shelters, guaranteed financing, indirect subsidies, associations of users.

A financing technique which almost certainly can improve the financial plan for most short line railroads is leasing. Locomotives, rolling stock and other equipment are properties which private investors will lease to a railroad. This type of asset is attractive for leasing because the lessor can readily repossess and resell the property if the lessee violates the lease. The lessee (operating railroad) benefits from leasing because it is not necessary to raise capital to purchase the asset. The lessor may be able to offer an attractive rental price depending on tax benefits which may be available.

Another type of incentive is where the Government guarantees the payment of interest, principal, and/or dividends on an obligation. Such guarantees greatly reduce investor risk, thereby providing substantial inducement to private investors to supply funds. Guarantees are particularly useful when a government entity does not wish to be directly involved in financing the continuation of rail service but is willing to bear some of the risks.

Similarly, inducements may be provided by interest rate subsidies. For example, the non-taxable bond is a form of interest rate subsidy. Allowing interest on a short line's debt to be exempt

from income taxation may also aid in attracting funds.

Interest rate subsidies can take other forms. If a concerned group is willing to provide low cost capital for the continuation of rail service, then it may be possible to issue securities at interest rates below normal market levels to "friends of the railroad." An alternative method is that a group of concerned citizens and industries acquire the rail properties and then lease these properties back to the railroad at rentals which are less than the cost of debt service.

The tax shelter is a potential financing technique if the light density line operation establishes a business structure which can pass losses through to investors. Tax shelters often receive unfavorable publicity, but their purpose is to encourage investment in activities which are normally unable to compete in capital markets without special provisions to increase after-tax profits. Attractive depreciation rules can serve as tax shelters. Another technique is the depletion allowance, which would allow railroads to expense depreciation on the basis of traffic or revenue and would serve as an offset to revenue to minimize income tax liability.

I.2 STATE AND LOCAL FINANCING

Eight forms of public financing for retaining rail service can be considered:

- (1) General obligation bonds;
- (2) Revenue bonds;
- (3) General tax revenues;
- (4) Development districts or zone;
- (5) Special tax assessments or surcharges;
- (6) Regional authorities;
- (7) Development corporations;
- (8) Grants.

General obligation bonds are debt instruments used to supply the debt capital requirements of many State, local and county governments. They are supported by the full faith and credit of the government institution. Revenue bonds are used to finance public works projects such as airports, bridges, and sewer systems. The fees derived from operating these projects are used to service the bonds. Revenue bonds are typically issued at interest rates somewhat higher than general obligation bonds, because they are often not restricted by many of the statutory requirements covering general obligation bonds. Moreover, since revenue bonds are secured by a revenue producing operation, it is easier for governing bodies to authorize their issuance.

Analogous to general obligation bonds, general tax revenues are a source of financing of rail projects unless there are prohibitions against using tax monies for such purposes. Financing by general obligation bonds and general tax revenues distribute the investment burden over the total tax base. However, financing through revenue bonds distributes the burden to users of the project.

In some situations the financial burdens of continuing rail service can be more directly placed on those benefiting from the continuation through the es-

tablishment of development districts or zones. An example of a development district is a downtown area of a city where merchants agree to pay a special tax to finance the debt service required for the construction of a downtown municipal parking garage. In order to finance the continuation of rail service, a local government could establish tax districts along the areas served by the rail line. The rationale is that the values of land adjacent to a railroad is enhanced because of the improved opportunities for development due to the availability of rail service. Zones could be designated wherein all land owners in the proximity of the right of way would be assessed a special tax or surcharge depending on their location.

The concept of a special tax zone is directly analogous to the idea that special tax assessments should be used to distribute the burden of the program to those who are the beneficiaries. Therefore, in addition to specific geographic districts, special taxes should be considered. For example, the government could institute a special tax upon industries which are the direct beneficiaries of continued rail services. Alternatively, sales taxes may be used if the project has identifiable benefits for the entire local or regional economy.

Sometimes the difficulty in raising public funds is the political impediment of gaining authorization for additional taxes or bond issues. When this barrier exists, it is useful to seek out alternative public institutions—such as a regional authority—which can extend its activities into the ownership and operation of railroads. For example, several years ago the Port Authority of New York and New Jersey stepped in and acquired the Hudson Tubes for the purpose of providing vital public passenger rail services when the common carrier could no longer serve the market. Similarly, regional authorities could acquire and operate lines of the bankrupts to provide services to existing shippers and to facilitate industrial development.

If no such institution exists or it is considered too elaborate to establish, then "development corporations" might be a convenient alternative. Some localities and regions have already established development corporations which function to acquire land and then to promote and finance commercial and industrial development. The success of development corporations is largely dependent on the assistance they can provide to industrial tenants in their efforts to raise capital. Many industrial development corporations purchase land and erect industrial parks financed with tax exempt bonds. The space is then leased to a business at rentals which reflect the low service costs on the tax exempt bonds. A development corporation is ideally suited for the financing of continued rail service because it can raise capital at relatively low interest rates and can issue bonds without the impediments of municipal financing.

1.3. FEDERAL FINANCING

In addition to private funding at the State and local levels, federal funds are available to help finance the continuation of rail service.

Title IV of the Act provides \$180 million of Federal funds designed primarily to continue rail service on light density lines not recommended for service in the Final System Plan. These sums must be matched to a minimum of 30% by other parties.

The Act envisions that operating subsidies will not be the only method utilized to continue the operation of rail lines which are not included in ConRail. Sections 402 and 403 of the Act provide that Federal dollars be made available on a matching basis to local, regional and State transportation authorities for acquisition and modernization of rail lines.

Section 402 provides that the \$90 million discretionary fund, over which the Secretary of Transportation has control, may be used for Section 403 purposes, i.e., these funds can be allocated for acquisition and modernization of rail lines. Any grants made under the discretionary funding portion of Section 402(b) (2) for modernization and acquisition must be pursuant to the State Rail Plan required under Section 402(c). The local, regional, or State authority must match the federal funds with at least 30 percent.

Section 403 provides for acquisition and modernization loans to local, regional and State transportation authorities of states eligible for subsidy funds under 402(c). The funds for Section 403 are provided for in Section 211 of the Act. The amount of money which will be available for this program has not yet been determined. The Federal share must be matched by the recipient of Federal funds on at least a 70-30 basis. (Any project for which a Section 403 loan is made can no longer receive a rail service continuation subsidy under Section 402).

It should also be noted that there are numerous sources of funds available under Federal grant programs that may be used for any of the alternatives to subsidization. Many agencies, such as the Department of Commerce, the Department of Housing and Urban Development, and the Department of Transportation, offer assistance in the form of project and research grants, direct loans, and guaranteed/insured loans to public and private organizations and private citizens. Both profit and non-profit institutions are eligible.

1.4. THE USE OF TAX CLAIMS

Railroads pay taxes to State and local governments. The taxes paid are mostly on real estate, but other types of taxes such as ad valorem taxes, State franchise taxes, unemployment tax, and school taxes, may also be paid by the railroads. Unpaid State and local taxes are one of the largest claims against the estates of the bankrupts. Past and future taxes can function as a source of funds for communities interested in continued rail service.

An intriguing concept for raising funds to be used for preserving rail serv-

ice is to treat forgiveness of tax claims as a method of financing. In railroad reorganizations, tax claims are senior debts of the estate. Tax claims which accrued after the petition for bankruptcy are considered administrative expenses of the estate and are accorded the high priority which is given to such claims. However, tax claims which result from nonpayment before bankruptcy (pre-petition) are not given as high priority, but they are still relatively senior. Those tax claims which statutorily constitute liens on the property are known as secured tax claims. This class of claim is accorded the highest priority of all pre-bankruptcy claims (save one small class). However, some localities do not place liens upon property when the taxes are in default. For these claims, the priority is lowered to "unsecured" tax claims. Nevertheless, most localities have a substantial claim against bankrupt estates because of post-petition deferrals. It is these senior claims which can be used as an attractive source of capital.

Forgiveness of tax claims is, strictly speaking, an inappropriate term for describing the use of tax claims as a source of funds. Forgiveness implies the relinquishment of claim without a corresponding exchange of consideration from the debtor. In contrast, the theme of this discussion is that consideration will be received in exchange for relinquishment of a claim; thus, forgiveness is essentially part of a contractual agreement between the debtor and the claimant.

For what purposes can such tax forgiveness be used? These claims will probably be useful for acquisitions and/or inducements for other financing arrangements. An obvious use for tax claims is as the consideration in an acquisition of rail properties. For example, assume there are tax claims against a bankrupt carrier held by county and local governments. If the agreed purchase price of the line were \$50,000 and the tax claims were \$10,000, then this amount could be applied towards the purchase price. The governments would have to raise \$40,000 additional dollars to acquire the rail line. An important issue which must be considered is possible sources for the needed \$40,000. To carry the example further, assume the county has properties of the bankrupt carrier within its jurisdiction; undoubtedly, tax liens and claims exist against these properties as well. Therefore, can the claims against the non-acquired properties be used to offset the purchase of the desired rail line? Can the State allow some of its own claims against the estate to be allocated for the purpose of satisfying the purchase price of the rail line? These issues are not altogether clear in every case; however, as long as the State and local governments hold senior claims against the estates, the trustee(s) should be willing to listen to reasonable offers aiding the settlement of the estate. Thus, if the tax claim offset against the purchase price appears to be an attractive way to dispose of claims, then the trustee will likely be amenable to offers from the government agencies.

Forgiveness of tax claims may also emerge as a useful technique in financing inducements for continued rail services. A typical inducement will be the standardized rail service continuation subsidy under the Act. Since the subsidy provider is responsible for providing a rate of return on investments to the estate of the owner of the line under subsidy, then tax claims forgiveness might offset this expense in total or in part.

Somewhat more complex is an arrangement whereby the operating carrier which does not own the infrastructure contracts with the subsidizer to provide continued rail services. This sort of arrangement might be possible if a solvent carrier acquires portions of an estate which is conveying substantially all of its assets. In this case, the acquirer could satisfy its purchase obligation by assuming a State/local tax claim which in turn would be forgiven in exchange for an operating subsidy. A hypothetical application of this rather complex arrangement would be an agreement in which the Chessie operated an undesignated light density line of the Reading Company. The agreement for operations would be between Chessie System and the subsidizer. However, if the Chessie purchases portions of the Reading Company, part of its purchase price could be "forgiven" in exchange for operating contracts over the undesignated line. It would be contractually agreed that the Chessie arrangement would be "consideration" conveyed to the Reading Company for some properties. This consideration would be directly applicable to satisfy Reading's claims to the governments involved in the subsidy contract. Thus, a three-way arrangement is formed from the subsidizer to the Chessie in which the subsidizer's liens against the Reading Company are used as partial payment to the Chessie.

In contrast, the Boston and Maine is a special case because it is a railroad which has substantial liens against it, and it intends to remain in business. These tax liens could be contractually eliminated in a court-approved operating agreement in which the claim is forgiven in exchange for some sort of operating agreement. (An operating agreement between a subsidizer and the Boston and Maine is not restricted by the Act).

There are several issues which will have to be recognized and resolved before the forgiveness of tax claims becomes a functional alternative method of retaining rail service. Usage of tax liens for such purposes is unprecedented and has no statutory guides. Pitfalls exist within the estates of the bankrupts, as well as within the political structure and laws which constrict the subsidizer.

The subsidizer should be prepared to negotiate and compromise with the trustee of the bankrupt estates. However, these negotiations will not be easy because the trustees may not necessarily interpret themselves as having the authority to make the agreements envisioned by the subsidizer. In fact, some trustees do not have the staff needed to react to matters as complex as offset-

ting liens against subsidy costs. The most important factor to bear in mind is that most railroad reorganization plans are the result of compromised negotiated agreements among classes of claimants in which full compensation is not received, but the settlement is superior to continued litigation. The State and local claimants, despite the seniority of their claims, are in the same predicament. It will take many years to distribute the proceeds of the reorganization plan. Therefore, if a State and local government is interested in utilizing its claims in the near future, it must be prepared to offer an attractive deal to the trustees which the trustees can submit to the reorganization court for approval. If the proposal is clearly unfavorable, the trustee or some other class of creditor will undoubtedly successfully block the contract.

As can be seen, one of the extremely important issues is the different classes into which the state and local governments' claims can be allocated.

Tax claims are separated according to the following categories:

- (1) Secured—unsecured;
- (2) Interest;
- (3) Pre-petition—post-petition;
- (4) Federal tax claims.

A secured tax claim is that in which local statute provides the tax claimant with a lien on the property to which the taxes are in default. An unsecured tax claim is not secured by such a lien. The bankruptcy statutes treat the secured claim with a higher priority than unsecured claims. If the proceeds from the disposition of a particular property do not fully satisfy the claims of the tax lienholder (claimant), then the claimant may have an unsecured claim against the remainder of the estate. The courts treat interest on such claims in a wholly subjective manner. Very often they will not accept interest on post-petition tax accruals. However, some courts have given some weight to interest on pre-petition tax claims. At this stage, it is impossible to conjecture what a probable interest rate will be even if the courts decide to recognize interest claims.

Tax claims, like all other claims, are ranked according to the time of incurrence of the claim. Claims which accrue after the petition for bankruptcy are known as post-petition claims. These are related to the cost of administration of the estate in order to keep the estate operating until it is reorganized. These claims are afforded the highest priority. Vendor-type claims which occur just before the petition for bankruptcy receive the next highest priority. Then pre-petition claims are addressed. The most senior class among these is secured tax liens. Unsecured tax liens are subordinate to these and other secured liens. (An example of another lienholder is the mortgagee on properties.) Secured claims are probably of high enough priority to be useful levers in negotiations.

State and local claims are subordinate to Federal claims. However, unresolved at this time is whether unsecured Fed-

eral claims are senior to secured state and local claims. Another issue facing the State and local creditors are the residual claims that they hold beyond their lien. That is, can the State/local claimant holding a lien against a particular property bring an unsecured claim against the entire estate if the proceeds from the sale of the secured property are not sufficient to satisfy the lien?

Even though the State/local claims are rather senior claims, in many cases they will not be satisfied in cash at 100 cents on the dollar. In fact, some sort of paper is likely to be issued and the market value may be at somewhat of a discount to the recognized claim. Furthermore, it is very possible that disposition of a claim could take many years from the time of conveyance to ConRail. Thus, the proceeds to be distributed to the State and local governments are likely to have a present worth at a very substantial discount of their base claim. Once again, there is cogent reason for the state and locals to negotiate an agreement with the estate.

An interesting wrinkle which will emerge in some of these negotiations is the inset of reversionary rights. When many of the railroads were built in the region, the State provided the railroad franchise with the right to construct the railroad with the provision that if the railroad ceased to exist, then the land would revert back to the original owner or the State. Thus, if the railroad abandons a line, it does not actually hold the salvage right to the land, but merely the removeable structures. In such cases, it may be more advantageous for the State/local governments to permit the railroad to abandon the line; then, the government can take over the right of way when the reversionary rights become effective. In effect, a costless acquisition of the land has occurred. Of course, statutory constraints at the State and local level will have to be researched before properties can be taken over by this method.

J. NON-CASH FINANCIAL INCENTIVES

Tax credits are a way to enhance the prospects of a project; they can be used as incentives to users or suppliers of rail service. A special investment tax credit could be applicable to investors in light density line projects. For example, rehabilitation expenditures could be accorded a specialized accounting treatment by State and local taxing authorities. In States with income taxes, rehabilitation expenditures could be treated in a manner similar to the Federal investment tax credit. Where income taxes do not exist, then special provisions for rehabilitation could be used to offset assessed real estate tax rates.

Communities may not need to provide direct economic impetus to attract investor support for a light density line project. Often the powers of the community government can be brought to bear to make the operations of the light density line more attractive. Typically the community controls zoning, development and public works. Each of these

authorities could provide incentives with very real implications to the owners and operators of rail lines.

Class I railroads and potential investors in a short line enterprise will often consider the overall package much more attractive if it is accompanied by the prospect for development of railroad owned land adjacent to the line. Changes in zoning classifications on these lands could facilitate railroad-lead development. An agreement could be made wherein the railroad would agree to upgrade its rail facilities in exchange for certain land and/or zoning changes. Another incentive is to use the capability of the community's office of public works. The community could assume the responsibility for maintenance of some structures on the right of way in exchange for continued or improved rail service on the line.

In summary, local, county, regional, and State governments have potentially numerous ways of enhancing the prospect for continued rail service on a line without simply establishing massive subsidy and acquisition programs. However, the applicability of these techniques has to be considered with regard to each individual light density rail line.

[SEAL]

ROBERT L. OSWALD,
Secretary.

APPENDIX 4

SELECTED PAGES FROM CLASS II RAILROAD
ANNUAL REPORT TO THE ICC (FORM R-2)

200. COMPARATIVE GENERAL BALANCE SHEET—ASSETS

For instructions covering this schedule, see the text pertaining to General Balance Sheet Accounts in the Uniform System of Accounts for Railroad Companies. The entries in this balance sheet should be consistent with those in the supporting schedules on the pages indicated. The entries in column (c) should be restated to conform with the accounting requirements followed in column (b). The entries in the short column (a2) should be deducted from those in column (a1) in order to obtain corresponding entries for column (b). All contra entries hereunder should be indicated in parenthesis.

Line No.	Account or item (a)	Balance at close of year (b)	Balance at beginning of year (c)
	CURRENT ASSETS	\$	\$
1	(701) Cash		
2	(702) Temporary cash investments		
3	(703) Special deposits		
4	(704) Loans and notes receivable		
5	(705) Traffic, car service and other balances-Dr.		
6	(706) Net balance receivable from agents and conductors		
7	(707) Miscellaneous accounts receivable		
8	(708) Interest and dividends receivable		
9	(709) Accrued accounts receivable		
10	(710) Working fund advances		
11	(711) Prepayments		
12	(712) Material and supplies		
13	(713) Other current assets		
14	(714) Deferred income tax charges (p. 10A)		
15	Total current assets		
	SPECIAL FUNDS	(a1) Total book assets at close of year	(a2) Respondent's own issued included in (a1)
16	(715) Sinking funds		
17	(716) Capital and other reserve funds		
18	(717) Insurance and other funds		
19	Total special funds		
	INVESTMENTS		
20	(721) Investments in affiliated companies (pp. 16 and 17)		
21	Undistributed earnings from certain investments in account 721 (p. 17A)		
22	(722) Other investments (pp. 16 and 17)		
23	(723) Reserve for adjustment of investment in securities—Credit		
24	Total investments (accounts 721, 722 and 723)		
	PROPERTIES		
25	(731) Road and equipment property: Road		
26	Equipment		
27	General expenditures		
28	Other elements of investment		
29	Construction work in progress		
30	Total (p. 13)		
31	(732) Improvements on leased property: Road		
32	Equipment		
33	General expenditures		
34	Total (p. 12)		
35	Total transportation property (accounts 731 and 732)		
36	(735) Accrued depreciation—Road and equipment (pp. 21 and 22)		
37	(736) Amortization of defense projects—Road and Equipment (p. 24)		
38	Recorded depreciation and amortization (accounts 735 and 736)		
39	Total transportation property less recorded depreciation and amortization (line 33 less line 36)		
40	(737) Miscellaneous physical property		
41	(728) Accrued depreciation - Miscellaneous physical property (p. 25)		
42	Miscellaneous physical property less recorded depreciation (account 737 less 738)		
43	Total properties less recorded depreciation and amortization (line 37 plus line 40)		
	OTHER ASSETS AND DEFERRED CHARGES		
44	(741) Other assets		
45	(742) Unamortized discount on long-term debt		
46	(743) Other deferred charges (p. 26)		
47	(744) Accumulated deferred income tax charges (p. 10A)		
48	Total other assets and deferred charges		
49	TOTAL ASSETS		

Note.—See page 6 for explanatory notes, which are an integral part of the Comparative General Balance Sheet.

200 COMPARATIVE GENERAL BALANCE SHEET—LIABILITIES AND SHAREHOLDERS' EQUITY

For instructions covering this schedule, see the text pertaining to General Balance Sheet Accounts in the Uniform System of Accounts for Railroad Companies. The entries in this balance sheet should be consistent with those in the supporting schedules on the pages indicated. The entries in column (c) should be restated to conform with the account requirements followed in column (b). The entries in short column (a1) should reflect total book liability at close of year. The entries in the short column (a2) should be deducted from those in column (a1) in order to obtain corresponding entries for column (b). All contra entries hereunder should be indicated in parenthesis.

Line No.	Account or item (a)	Balance at close of year (b)	Balance at beginning of year (c)
	CURRENT LIABILITIES	\$	\$
50	(751) Loans and notes payable (p. 26) _____		
51	(752) Traffic car service and other balances-Cr. _____		
52	(753) Audited accounts and wages payable _____		
53	(754) Miscellaneous accounts payable _____		
54	(755) Interest matured unpaid _____		
55	(756) Dividends matured unpaid _____		
56	(757) Unmatured interest accrued _____		
57	(758) Unmatured dividends declared _____		
58	(759) Accrued accounts payable _____		
59	(760) Federal income taxes accrued _____		
60	(761) Other taxes accrued _____		
61	(762) Deferred income tax credits (p. 10A) _____		
62	(763) Other current liabilities _____		
63	Total current liabilities (exclusive of long-term debt due within one year) _____		
	LONG-TERM DEBT DUE WITHIN ONE YEAR	(a1) Total issued	(a2) Held by or for respondent
64	(764) Equipment obligations and other debt (pp. 11 and 14) _____		
	LONG-TERM DEBT DUE AFTER ONE YEAR	(a1) Total issued	(a2) Held by or for respondent
65	(765) Funded debt unmatured (p. 11) _____		
66	(766) Equipment obligations (p. 14) _____		
67	(767) Receivers' and Trustees' securities (p. 11) _____		
68	(768) Debt in default (p. 26) _____		
69	(769) Amounts payable to affiliated companies (p. 14) _____		
70	Total long-term debt due after one year _____		
	RESERVES		
71	(771) Pension and welfare reserves _____		
72	(772) Insurance reserves _____		
73	(774) Casualty and other reserves _____		
74	Total reserves _____		
	OTHER LIABILITIES AND DEFERRED CREDITS		
75	(781) Interest in default _____		
76	(782) Other liabilities _____		
77	(783) Unamortized premium on long-term debt _____		
78	(784) Other deferred credits (p. 26) _____		
79	(785) Accrued depreciation—Leased property (p. 23) _____		
80	(786) Accumulated deferred income tax credits (p. 10A) _____		
81	Total other liabilities and deferred credits _____		
	SHAREHOLDERS' EQUITY	(a1) Total issued	(a2) Held by or for company
	<i>Capital stock (Par or stated value)</i>		
82	(791) Capital stock issued: Common stock (p. 11) _____		
83	Preferred stock (p. 11) _____		
84	Total _____		
85	(792) Stock liability for conversion _____		
86	(793) Discount on capital stock _____		
87	Total capital stock _____		
	<i>Capital surplus</i>		
88	(794) Premiums and assessments on capital stock (p. 25) _____		
89	(795) Paid-in-surplus (p. 25) _____		
90	(796) Other capital surplus (p. 25) _____		
91	Total capital surplus _____		
	<i>Retained income</i>		
92	(797) Retained income—Appropriated (p. 25) _____		
93	(798) Retained income—Unappropriated (p. 10) _____		
94	Total retained income _____		
95	Total shareholders' equity _____		
96	TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY _____		

300. INCOME ACCOUNT FOR THE YEAR

1. Give the Income Account of the respondent for the year in accordance with the rules prescribed in the Uniform System of Accounts for Railroad Companies. All contra entries hereunder should be indicated in parentheses.

2. Any unusual accruals involving substantial amounts included in column (b) on lines 7 to 57, inclusive, should be fully explained in a footnote.

3. Line 28 includes only dividends from investments accounted for under the cost method. Line 34 includes only dividends accounted for under the equity method. Line 35 includes the undistributed earnings from investments accounted for under the equity method. Line 36 represents the earnings (losses) of investee companies accounted for under the equity method.

Line No.	Item (a)	Amount for current year (b)
	ORDINARY ITEMS	\$
	OPERATING INCOME	
	RAILWAY OPERATING INCOME	
1	(501) Railway operating revenues (p. 27) _____	
2	(531) Railway operating expenses (p. 28) _____	
3	Net revenue from railway operations _____	
4	(532) Railway tax accruals _____	
5	(533) Provision for deferred taxes _____	
6	Railway operating income _____	
	RENT INCOME	
7	(503) Hire of freight cars and highway revenue equipment—Credit balance _____	
8	(504) Rent from locomotives _____	
9	(505) Rent from passenger-train cars _____	
10	(506) Rent from floating equipment _____	
11	(507) Rent from work equipment _____	
12	(508) Joint facility rent income _____	
13	Total rent income _____	
	RENTS PAYABLE	
14	(536) Hire of freight cars and highway revenue equipment—Debit balance _____	
15	(537) Rent for locomotives _____	
16	(538) Rent for passenger-train cars _____	
17	(539) Rent for floating equipment _____	
18	(540) Rent for work equipment _____	
19	(541) Joint facility rents _____	
20	Total rents payable _____	
21	Net rents (line 13 less line 20) _____	
22	Net railway operating income (lines 6,21) _____	
	OTHER INCOME	
23	(502) Revenues from miscellaneous operations (p. 28) _____	
24	(509) Income from lease of road and equipment (p. 31) _____	
25	(510) Miscellaneous rent income (p. 29) _____	
26	(511) Income from nonoperating property (p. 30) _____	
27	(512) Separately operated properties—Profit _____	
28	(513) Dividend income (from investments under cost only) _____	
29	(514) Interest income _____	
30	(516) Income from sinking and other reserve funds _____	
31	(517) Release of premiums on funded debt _____	
32	(518) Contributions from other companies (p. 31) _____	
33	(519) Miscellaneous income (p. 29) _____ (a1)	
34	Dividend income (from investments under equity only) _____ \$	XXXXXX
35	Undistributed earnings (losses) _____	XXXXXX
36	Equity in earnings (losses) of affiliated companies (lines 34,35) _____	
37	Total other income _____	
38	Total income (lines 22,37) _____	
	MISCELLANEOUS DEDUCTIONS FROM INCOME	
39	(534) Expenses of miscellaneous operations (p. 28) _____	
40	(535) Taxes on miscellaneous operating property (p. 28) _____	
41	(543) Miscellaneous rents (p. 29) _____	
42	(544) Miscellaneous tax accruals _____	
43	(545) Separately operated properties—Loss _____	

300. INCOME ACCOUNT FOR THE YEAR—Continued

Line No.	Item (a)	Amount for current year (b)
		\$.
44	(549) Maintenance of investment organization _____	
45	(550) Income transferred to other companies (p. 31) _____	
46	(551) Miscellaneous income charges (p. 29) _____	
47	Total miscellaneous deductions _____	
48	Income available for fixed charges (lines 38, 47) _____	
	FIXED CHARGES	
49	(542) Rent for leased roads and equipment _____	
	(546) Interest on funded debt:	
50	(a) Fixed interest not in default _____	
51	(b) Interest in default _____	
52	(547) Interest on unfunded debt _____	
53	(548) Amortization of discount on funded debt _____	
54	Total fixed charges _____	
55	Income after fixed charges (lines 48, 54) _____	
	OTHER DEDUCTIONS	
	(546) Interest on funded debt:	
56	(c) Contingent interest _____	
57	Ordinary income (lines 55, 56) _____	
	EXTRAORDINARY AND PRIOR PERIOD ITEMS	
58	(570) Extraordinary items—Net Credit (Debit) (p. 9) _____	
59	(580) Prior period items—Net Credit (Debit) (p. 9) _____	
60	(590) Income taxes on extraordinary and prior period items—Debit (Credit) (p. 9) _____	
61	(591) Provision for deferred taxes—Extraordinary and prior period items _____	
62	Total extraordinary and prior period items—Credit (Debit) _____	
63	Net income transferred to Retained Income—Unappropriated (lines 57, 62) _____	

NOTE.—See page 9 for explanatory notes, which are an integral part of the Income Account for the Year.

2002. RAILWAY OPERATING EXPENSES

1. State the railway operating expenses of the respondent for the year, classifying them in accordance with the Uniform System of Accounts for Railroad Companies.

2. Any unusual accruals involving substantial amounts included in column (b) should be fully explained in a footnote.

Line No.	Name of railway operating expense account (a)	Amount of operating expenses for the year (b)	Line No.	Name of railway operating expense account (a)	Amount of operating expenses for the year (b)
	MAINTENANCE OF WAY STRUCTURES	\$		TRANSPORTATION—RAIL LINE	\$
1	(2201) Superintendence		28	(2241) Superintendence and dispatching	
2	(2202) Roadway maintenance		29	(2242) Station service	
3	(2203) Maintaining structures		30	(2243) Yard employees	
4	(2203½) Retirements—Road		31	(2244) Yard switching fuel	
5	(2204) Dismantling retired road property		32	(2245) Miscellaneous yard expenses	
6	(2208) Road property—Depreciation		33	(2246) Operating joint yards and terminals—Dr	
7	(2209) Other maintenance of way expenses		34	(2247) Operating joint yards and terminals—Cr	
8	(2210) Maintaining joint tracks, yards and other facilities—Dr		35	(2248) Train employees	
9	(2211) Maintaining joint tracks, yards, and other facilities—Cr		36	(2249) Train fuel	
10	Total maintenance of way and structures		37	(2251) Other train expenses	
	MAINTENANCE OF EQUIPMENT		38	(2252) Injuries to persons	
11	(2221) Superintendence		39	(2253) Loss and damage	
12	(2222) Repairs to shop and power-plant machinery		40	(2254) Other casualty expenses	
13	(2223) Shop and power-plant machinery—Depreciation		41	(2255) Other rail and highway transportation expenses	
14	(2224) Dismantling retired shop and power-plant machinery		42	(2256) Operating joint tracks and facilities—Dr	
15	(2225) Locomotive repairs		43	(2257) Operating joint tracks and facilities—Cr	
16	(2226) Car and highway revenue equipment repairs		44	Total transportation—Rail line	
17	(2227) Other equipment repairs			MISCELLANEOUS OPERATIONS	
18	(2228) Dismantling retired equipment		45	(2258) Miscellaneous operations	
19	(2229) Retirements—Equipment		46	(2259) Operating joint miscellaneous facilities—Dr	
20	(2234) Equipment—Depreciation		47	(2260) Operating joint miscellaneous facilities—Cr	
21	(2235) Other equipment expenses			GENERAL	
22	(2236) Joint maintenance of equipment expenses—Dr		48	(2261) Administration	
23	(2237) Joint maintenance of equipment expenses—Cr		49	(2262) Insurance	
24	Total maintenance of equipment		50	(2264) Other general expenses	
	TRAFFIC		51	(2265) General joint facilities—Dr	
25	(2240) Traffic expenses		52	(2266) General joint facilities—Cr	
26			53	Total general expenses	
27			54	Grand Total Railway Operating Expenses	
55	Operating ratio (ratio of operating expenses to operating revenues), _____ per cent. (Two decimal places required.)				

2003. MISCELLANEOUS PHYSICAL PROPERTIES OPERATED DURING THE YEAR

Give particulars of each class of miscellaneous physical property or plant operated during the year. Group the properties under the heads of the classes of operations to which they are devoted.

is that of ownership or whether the property is held under lease or other incomplete title. All peculiarities of title should be explained in a footnote.

The totals of columns (b), (c), and (d) should agree with the totals of accounts Nos. 502, "Revenue from Miscellaneous operations," 534, "Expenses of miscellaneous operations," and 535, "Taxes on miscellaneous operating property" in respondent's Income Account for the Year. If not, differences should be explained in a footnote.

In column (a) give the designation used in the respondent's records and the name of the town or city and State in which the property or plant is located, stating whether the respondent's title

Line No.	Designation and location of property or plant, character of business, and title under which held (a)	Total revenue during the year (Acct. 502) (b)	Total expenses during the year (Acct. 534) (c)	Total taxes applicable to the year (Acct. 535) (d)
		\$	\$	\$
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11	Total			

APPENDIX 5

RAILROAD REGULATORY COMMISSIONS

Federal Regulatory Commissions

Interstate Commerce Commission
12th and Constitution Ave., N.W.
Washington, D.C. 20423

State Regulatory Commissions

Alabama - Public Service Commission
P. O. Box 991
Montgomery, Alabama 36102

Alaska Public Service Commission
Does not have regulatory power over
railroads

Arizona Corporation Commission
1688 W. Adams Street
Phoenix, Arizona 85007

Arkansas Transportation Commission
Justice Building
Little Rock, Arizona 72201

California - Public Utilities
Commission of
350 McAllister Street
San Francisco, California 94102

Colorado - Public Utilities
Commission of
500 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

Connecticut - Public Utilities
Commission
State Office Building
Hartford, Connecticut 06115

Delaware
No reports required

Florida Public Service Commission
700 S. Adams Street
Tallahassee, Florida 32304

Georgia - Public Service Commission
244 Washington Street, S. W.
Atlanta, Georgia 30334

Hawaii - Public Utilities
Commission of
P. O. Box 541
Honolulu, Hawaii 96809

Idaho Public Utilities Commission
472 W. Washington Street - office
Boise, Idaho 83702
Statehouse - mailing address
Boise, Idaho 83702

Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, Illinois 62706

Indiana - Public Service Commission
901 Indiana State Office Building
Indianapolis, Indiana 46204

Iowa State Commerce Commission
State Capitol
Des Moines, Iowa 50309

Kansas - State Corporation Commission of
Fourth Floor
State Office Building
Topeka, Kansas 66612

Kentucky Railroad Commission
1024 State Office Building
Frankfort, Kentucky 40601

Louisiana Public Service Commission

Maine - Public Utilities Commission
State House
Augusta, Maine

Maryland - Public Service Commission of
301 W. Preston Street
State Office
Baltimore, Maryland 21201

Massachusetts - Department of Public
Utilities
100 Cambridge Street
New State Office Building
Boston, Massachusetts 02202

Michigan Public Service Commission
Law Building
5th Floor
525 W. Ottawa Street
Lansing, Michigan 48913

Minnesota Public Service Commission
400 S. E. State Office Building
St. Paul, Minnesota 55155

Mississippi - Public Service
Commission of
P.O. Box 1174
Jackson, Mississippi 39205

Missouri Public Service Commission
Jefferson Building
Jefferson City, Missouri 65102

Montana, State of, Public
Service Commission
1224 11th Avenue
Helena, Montana 59601

Nebraska Public Service Commission
1342 M Street
Lincoln, Nebraska 68508

Nevada Public Service Commission
222 E. Washington Street
Carson City, Nevada 89701

New Hampshire Public Utility
Commission

New Jersey - Department of Public
Utilities, Board of Public
Utility Commissioners
101 Commerce Street
Newark, New Jersey 07102

New Mexico State Corporation
Commission
P. O. Box 1269
Santa Fe, New Mexico 87501

New York - State of, Department
of Transportation
1220 Washington Avenue
State Campus
Albany, New York 12226

North Carolina Utilities
Commission
P. O. Box 991
Raleigh, North Carolina 26702

North Dakota - Public Service
Commission of
State Capitol
Bismarck, North Dakota 58501

Ohio - Public Utilities Commission of
111 N. High Street
Columbus, Ohio 43215

Oklahoma Corporation Commission
Jim Thorpe Building
Oklahoma City, Oklahoma 73105

Oregon - Public Utility Commission of
200 Public Service Building
Oklahoma City, Oklahoma 73105

Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, Pennsylvania 17120

Rhode Island - Public Utilities
Commission
169 Weybosset Street
Providence, Rhode Island 02903

South Carolina - Public Service
Commission of
Box 11649
Columbia, South Carolina 29211

South Dakota Public Utilities
Commission
Capitol Building
Pierre, South Dakota 57501

Tennessee Public Service Commission
Cordell Hull Building
Nashville, Tennessee 37912

Texas - Railroad Commission of
P. O. Drawer 12967, Capitol Station
Austin, Texas 78711

Utah - Public Service Commission of
330 E. 4th South
Salt Lake City, Utah 84111

Vermont State Corporation Commission
7 School Street
Montpelier, Vermont 05602

Virginia State Corporation Commission
Box 1197
Richmond, Virginia 23209

Washington Utilities and
Transportation Commission
Highways - License Building
Olympia, Washington 98504

West Virginia - Public Service
Commission of
E-217 Capitol Building
Charleston, West Virginia 25305

Wisconsin - Public Service
Commission of
433 Hill Farms
State Office Building
Madison, Wisconsin 53702

Wyoming - Public Service
Commission
Supreme Court & State Library
Building
Cheyenne, Wyoming 82001

APPENDIX 6

RAILROAD RATE ASSOCIATIONS AND BUREAUS

There are three primary areas or regional groups relative to railroad rate making activities, plus the Uniform Classification Committee. The areas are: Eastern Railroads, Southern Freight Association and Western Traffic Association. Within each area are additional rate setting and tariff publishing agencies. These agencies, together with their addresses, are shown below:

UNIFORM CLASSIFICATION COMMITTEE

Room 1106, 222 South Riverside Plaza
Chicago, IL 60606

EASTERN RAILROADS; includes the following agencies:

New England Territory Railroads Tariff Bureau
Trunk Line Territory Tariff Bureau
Central Territory Railroads Tariff Bureau

For information on these agencies contact:

Traffic Executive Association-Eastern Railroads
Suite 500, Two Pennsylvania Plaza
New York, NY 10001

SOUTHERN FREIGHT ASSOCIATION

151 Ellis Street, Northeast
Atlanta, GA 30303
Southern Freight Tariff Bureau
Address same as Southern Freight Association
Southern Ports Foreign Freight Committee
Room 1100, 222 South Riverside Plaza, Chicago, IL 60606

WESTERN TRAFFIC ASSOCIATION; includes the following agencies:

Western Trunk Line Committee
222 South Riverside Plaza, Chicago, IL 60606
Southwestern Freight Bureau
1015 Locust Street, St. Louis, MO 63101
Texas-Louisiana Freight Bureau
501 Mercantile-Continental Bldg., Dallas, TX 75201
Transcontinental Freight Bureau
222 South Riverside Plaza, Chicago, IL 60606
Montana Lines Committee
Room 1240, 222 South Riverside Plaza, Chicago, IL 60606
Pacific Southcoast Freight Bureau
717 Market Street, San Francisco, CA 94103
North Pacific Coast Freight Bureau
Room 315, Union Station, Seattle, WA 98104

A rate bureau that publishes tariffs separate from the above three associations is:

Illinois Freight Association

Room 1118, 222 South Riverside Plaza, Chicago, IL 60606

APPENDIX 7

REGULATIONS CONCERNING APPLICATION FOR
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
(RAILROAD LINES)

Source: Federal Register, Vol. 32, No. 245 (December 20,
1967), Washington, D.C.: U. S. Government
Printing Office, pp. 20106-20108.

operation of lines of railroad shall set forth the following information:

(a) Exact corporate name of the applicant.

(b) Whether the applicant is (1) a carrier by railroad subject to the Interstate Commerce Act, (2) a corporation organized to construct and operate a railroad but not an operating corporation, or (3) an unincorporated organization, or an individual.

(c) Date of incorporation, and Government, State, or Territory under the laws of which the applicant was organized. If incorporated under the laws of, or authorized to operate in, several States, give the facts in regard thereto.

(d) Whether it is proposed (1) to construct a new line of railroad or an extension of an existing line of railroad, or (2) to acquire and operate, or to operate, a line of railroad not at the time owned or being operated by a common carrier.

NOTE: If the line to be acquired or operated is one for the abandonment of which permission has been granted, section 1 (18)-(20) of the act applies; the application should state the facts.

(e) Each State, and each county thereof, in which the line would be or is located.

(f) The route and termini of the line it is proposed to construct, acquire, or operate. Give the name of each incorporated city or village through which the line would or does pass.

(g) The total number of miles of track proposed to be constructed, acquired, or operated, showing main lines and branch lines separately.

(h) The reasons, briefly stated, why the present or future public convenience and necessity require or will require the proposed construction, acquisition, or operation. (Detailed reasons should be reserved for the return to the questionnaire set forth in § 1120.6.)

(i) Applicant's general plan for financing the proposed construction, or acquisition, and applicant's relation, if any, traffic or financial, to any other corporation or corporations.

(j) Reference to action by stockholders or directors of the applicant authorizing the making and filing of the application, giving date and place of meeting.

(k) Name, title, and post-office address of counsel or officer to whom correspondence in regard to application is to be addressed.

(l) The application and each copy thereof shall be accompanied by map drawn to scale, showing fully the geographic situation of the lines it is proposed to construct, acquire, or operate, and their relation to existing railroads. Towns, villages, large rivers or lakes, national parks, and reservations should be shown, at least near the route. The limits of the area which the applicant claims would be served should be shown when possible. The map and each copy thereof shall be on a sheet 8 x 10½ inches, or a multiple of that size not larger than 16 x 21 inches, and folded to dimension. The proposed line should be shown in clear relief on the prints by

PART 1120—CONSTRUCTION, EXTENSION, ACQUISITION, OR OPERATION OF RAILROAD LINES

Sec.

1120.1 Information to be contained in applications.

1120.2 Execution, filing, and disposal of application.

1120.3 Form and style.

1120.4 Notice of application.

1120.5 Return to questionnaire; general instructions.

1120.6 Questionnaire.

1120.7 Exhibits required.

1120.8 Verification required.

AUTHORITY: The provisions of this Part 1120 issued under sec. 12, 24 Stat. 383, as amended; 41 Stat. 476, as amended; 49 U.S.C. 1, 12.

§ 1120.1 Information to be contained in applications.

Applications for certificates of convenience and necessity authorizing the construction, extension, acquisition, or

color or otherwise. In addition, 3 extra copies of the map should be submitted, unbound, for the use of the Commission.

§ 1120.2 Execution, filing, and disposal of application.

The following procedure shall govern the execution, filing, and subsequent disposal of the application:

(a) The original application shall be signed by an executive officer of the applicant, shall be verified under oath, and shall show, among other things, that the affiant has knowledge of the matters and things therein stated and is duly authorized by the applicant to verify and file the application.

(b) The original application and nine copies for the use of the Commission shall be filed with the Secretary of the Commission, Washington, D.C. Each copy shall bear the dates and signatures that appear in the original and shall be complete in itself; the signatures in the copies may be stamped or typed, and the notarial seal may be omitted. Additional copies shall be furnished as directed by the Commission.

(c) Upon receipt of the application the Commission will transit to the applicant a notice of the filing of the application, which notice shall be published by the applicant at least once during each of three consecutive weeks in some newspaper of general circulation in each county in which any part of the line proposed to be constructed, acquired, or operated is located. Upon receipt of notice from the Commission that the application has been received and assigned a stated docket number, the applicant shall serve, by first class mail, a conformed copy of the application on the governor and public service commission of each State in which any part of the proposed construction, acquisition, or operation would be located, accompanied by a notice that if they desire to be heard in the matter they should advise the Commission within 20 days of their interest in the proceeding. A certificate of such service shall be filed with this Commission.

(d) The return to the questionnaire, as set forth in this part (§ 1120.5 et seq.), shall be filed with the Commission as soon as practicable, but not later than six weeks after receipt of notice of the filing of the application. Action will not be taken on the application, and a hearing thereon, if considered necessary by the Commission, will not be ordered until after the return to the questionnaire shall have been received. The applicant shall serve a copy of the return to the questionnaire on each governor and public service commission to whom a copy of the application was sent. A certificate of such service shall be filed promptly with the Commission.

§ 1120.3 Form and style.

The application and the return to the questionnaire shall be prepared in typewritten or printed form on paper approximately 8½ x 11 inches, with 1½ inch margin at the left side for binding.

§ 1120.4 Notice of application.

The return to the questionnaire shall contain a statement of publication of notice of the application in the following form:

The ----- Company, having made application to the Interstate Commerce Commission, under section 1 (18) of the Interstate Commerce Act, for (here state in detail the nature of application), which application is filed in the office of the Commission in Finance Docket No. -----, hereby affirms that notice of the application has been published in the form prescribed by the Commission, at least once during each of three consecutive weeks, in the following newspapers: (here list the newspapers); that said newspapers are of general circulation in each of the following counties of the States named: (name States and counties), which are all of the States and counties in which the proposed new line of railroad would be located, or in which the line to be acquired or operated is situated; and that the newspaper clippings hereto attached contain true copies of the notice as published in said newspapers.

§ 1120.5 Return to questionnaire; general instructions.

(a) Responses to all questions and requirements of the questionnaire shall be full and complete. Responses of a general nature will not be acceptable. For estimates and opinions the supporting data shall be given. Information not specifically requested but which may be helpful to the Commission in reaching correct conclusions should be supplied in detail.

(b) In the return to the questionnaire the questions must appear before the answers thereto and must be numbered and lettered as in the questionnaire in § 1120.6. Each copy of the return shall bear the dates and signatures that appear in the original and shall be complete in itself; the signatures in the copy may be stamped or typed and the notarial seal may be omitted. Statement of the same facts in answer to two or more questions should generally be avoided, suitable reference being made where necessary.

(c) In connection with applications for authority to acquire and to operate lines of railroad, questions clearly relating only to construction may be answered by the words "not applicable."

(d) The original return and nine copies for the use of the Commission, and two additional copies for each State in which is located any part of the lines to be constructed, acquired, or operated, shall be filed with the Secretary of the Interstate Commerce Commission, Washington, D.C. 20423.

§ 1120.6 Questionnaire.

The applicant shall also submit the following information required by the Commission:

1. The essential facts to show that the applicant is a carrier by railroad, engaged in the transportation of passengers or property, subject to the Interstate Commerce Act, or is a corporation organized to construct and operate a railroad. If not incorporated, so state, giving complete description of party or parties filing the application.

2. Whether the proposed new line of railroad would be both constructed and operated by the applicant.

3. Whether any corporation, individual, or trustee holds control over the applicant at the date of filing this return. If so:

(a) The form of control, whether sole or joint, and whether in trust.

(b) The name and business address of the controlling corporation, individual, or trustee.

(c) The manner in which control was established.

(d) The extent of control.

(e) Whether control is direct or indirect; if indirect, the name and business address of the intermediary through which it was established and is exercised.

(f) The name and business address of the beneficiaries for whom the trust, if any, is maintained.

(g) The purposes of the trust.

4. Whether the applicant is connected by stock ownership, or otherwise, with any industry to be served by the line proposed to be constructed, acquired, or operated. If so, state the facts.

5. The chief uses and purposes of the proposed line or operation.

6. The classes of service to be performed, as passenger, freight, express, and switching.

7. The kind of motive power to be used. If electric power, state source and estimated cost.

8. Whether the line proposed to be constructed, acquired, or operated would receive material revenue from the territory traversed, or serve any material public convenience and necessity of the local territory.

9. The name, area, and population of each county in which the new line is to be constructed, or in which the line to be acquired or operated is located, and the name and population of each city, town, and village at which a station would be or is established together with its distance from a designated initial point, with the source of information as to population.

10. The names of places mentioned in question 9 that are now served by common-carrier railroads (excluding street railways), and the name of each such carrier serving the several places.

11. The names of the places mentioned in question 9 that have no common carrier railroad service, the distance in miles of each such place from the nearest station of a common-carrier railroad, and the character of the connecting highway.

12. The name and population of each city, town, and village (together with state and county in which located), within the area to be served but not on the proposed route.

13. The approximate distance in miles by highway from the nearest station on the line to be constructed or acquired to each of the places mentioned in question 12, and the names of all common-carrier railroads that now serve each of the places.

14. The names of common-carrier railroads with which the line would connect, and the proposed points of track connection.

15. The number of common-carrier truck and bus lines operating in the area to be traversed by the line, and the character of service performed by each.

16. The general character of the country which the line would serve. Indicate whether it is level, rolling, mountainous, cultivated, pasture, prairie, desert, rocky, or timbered, etc.

17. The approximate area of the territory to be served by the line, an estimate of the population therein, and the area.

(1) in timber,

(2) in pasture, and

(3) under cultivation. (See General Instructions, § 1120.5.)

RULES AND REGULATIONS

18. The kinds of industry carried on in the area to be served, such, for example, as farming, dairying, grazing, coal mining, manufacturing, lumbering, etc., and the relative importance of each.

19. The main facts as to the age, growth, and extent of such industries, their probable future growth and permanence, and the reasons therefor.

20. What carriers now serve these industries, and to what extent.

21. Whether the chief support of the line to be constructed or acquired would come from the general community or from some particular industry or industries, located or to be located. In the latter case, give facts concerning such particular industry or industries and applicant's contractual or financial relation thereto.

22. Whether the proposed line of railroad would be built, acquired, or operated primarily for a direct profit from railway operation, or for the advantage of any other industry or business. If for the latter, state what industry or business would be so benefited, what such advantages would be, and the applicant's contractual or financial relation to said industry.

23. If the line is to be or is an extension of an existing railroad, or a branch, connecting track, or cutoff, the extent to which it is expected to be directly profitable in itself, and the extent to which it is expected to be justified by its effect on the business of the existing lines.

24. If the line is to be a connecting link between existing railroads, the kind and volume of traffic, expressed in tons or carloads, that probably would be interchanged, and the economies that would be effected by such interchange.

25. Of the interchange traffic mentioned in answer to question 24, what part, expressed in tons or carloads, cannot be hauled or moved by existing railroads or truck lines.

26. The facts concerning any agreement, tentative or otherwise, with existing carriers, covering operation, interchange of traffic, division of rates, or trackage rights, in connection with the line.

27. Whether any aid, gift, grant of right-of-way, or other donation has been promised in connection with the proposed new line of railroad; if so, state specifically the nature, amount, and value of such promised donations.

28. The manner in which it is proposed to finance construction and equipment, or acquisition, the kind and amount of securities to be issued, and the approximate terms of their sale; to what extent funds for financing are now available, and which, if any, of such securities would be underwritten by industries to be served by the proposed line.

29. An estimate, in detail, of the character and volume of traffic expected and the gross revenue to be derived therefrom, covering each of the first five years of operation, together with an estimate of the annual gross revenues expected after the first five years. The detailed estimate required for the first five years should show the amount of each class of traffic, the mean length of haul, the rate per unit, and the revenue to be derived, also chief points or territories of origin and destination.

30. The estimated gross revenue, operating expenses, net revenue, and net railway operating income, corresponding with the estimates of traffic under question 29. By "net railway operating income" is meant the excess of the credits over the debits to income, as reflected by the operating revenue, operating expense, railway tax accrual, uncollectible railway revenue, equipment rent, and joint facilities rent accounts.

31. The part of the estimated traffic which will constitute net additional business de-

veloped or created by the construction of the proposed new line of railroad, and the part that will be diverted from existing railroads.

32. The dates on which it is expected to begin and to complete the construction of the proposed new line of railroad.

33. The engineering work in full detail which has been done with respect to the proposed new line at the time of filing the return.

34. The following details concerning the line to be constructed:

(a) The gage and number of main line tracks.

(b) Weight of rail for main line tracks.

(c) Rate of maximum grade in each direction, and whether and how compensated for curvature.

(d) Rate of limiting grade that will fix train loading in each direction, and whether and how compensated for curvature.

(e) If helper grades are to be used, the location, length, rate, and direction of ascent for each.

(f) The maximum rate of curve.

(g) The average amount of curvature per mile, in degrees.

(h) The approximate length and height of wooden trestles or other temporary construction.

(Details under this paragraph not fixed by survey are to be estimated from reconnaissances so far as possible.)

Question 34 should also be answered for lines to be acquired, so far as the information may be available.

35. An estimate of total increase in charges to road and equipment account during the first five years after completion of the new line. If this displaces rental charges on equipment, so show.

36. Any additional facts or reasons to show that the public convenience and necessity require the granting of this application.

§ 1120.7 Exhibits required.

In the case of applications for authority to construct, there shall be filed with the return to the questionnaire the following exhibits: (Copies of return need not contain any exhibits except E and F.)

A. A copy of the engineering report of reconnaissance for the proposed line, if records of location surveys are not submitted.

B. A copy of the specifications as to construction, if any exist.

C. A map of the location projected or actually staked for the proposed line, if such location has been made. This map should show the alignment in detail, with the usual topographic features added. Small maps may be folded accordion fashion to conform to the size of the return. If more than 12 feet long, the maps should be submitted in a continuous roll.

D. A copy of the best available profile of the proposed line. If more than 12 feet long, submit in a continuous roll, otherwise fold to the size of the return.

E. (1) A detailed estimate of the cost of building the proposed line, with all the necessary appurtenances (except equipment), classified by Interstate Commerce Commission primary accounts; also a concise detail of estimated quantities and prices covering what is set down under accounts 8 to 12, inclusive. Details may be required for other principal accounts. A complete estimate showing quantities and prices in reasonable detail may be submitted in any form.

(2) Detailed estimates of the kind and cost (or rental cost) of the equipment required to handle the estimated traffic separately for the first and the fifth years of complete operation. State whether the equipment is to be bought or rented, show

second-hand equipment as such; give number of units, class of service and general type, with the weight and tractive power of locomotives and capacity of freight cars.

F. If the applicant is a going concern, copies of the income account for the five preceding calendar years and for the months of the current year for which the figures are available; also copies of the latest profit and loss account and general balance sheet.

G. Opinion of counsel that the proposed construction or acquisition is within the charter powers of the applicant.

In the case of applications for authority to acquire or operate, there shall be filed with the original of return to the questionnaire Exhibits F and G described in this section.

§ 1120.8 Verification required.

The return to the questionnaire should be verified by the applicant in the following form:

State of _____ ss.
County of _____

_____ makes oath and says

(Name of affiant)

that he is the _____

(Title of affiant)

of the _____

(Corporate name of applicant)

applicant herein; that he has been authorized by proper corporate action on the part of said applicant to verify and file with the Interstate Commerce Commission the foregoing return to questionnaire of said Commission in respect of the application in Finance Docket No. _____; that he has carefully examined all of the statements referred to in said return and the exhibits attached thereto and made a part thereof; that he has knowledge of the matters set forth in such return and that all such statements made and the matters set forth therein are true and correct to the best of his knowledge, information, and belief.

Subscribed and sworn to before me _____
in and for the State and County above named, this _____ day of _____, 19 _____

My commission expires _____

APPENDIX 8

CODE OF CAR HIRE RULES
AND INTERPRETATIONS - FREIGHT

(Effective January 20, 1977)

Source: The Official Railway Equipment Register,
Vol. 92, No. 3 (January 10, 1977), New York:
National Railway Publication Company,
pp. 1080-1092.

CODE OF CAR HIRE RULES AND INTERPRETATIONS—FREIGHT

Effective March 1, 1973.

GOVERNING SETTLEMENT FOR THE USE OF RAILROAD OWNED FREIGHT CARS BETWEEN ALL COMMON CARRIER RAILROADS, EXCEPT AS PROVIDED FOR IN APPENDIX "B"

RULE 1 (Change effective with January 1977 Service Month shown by symbol •.)

(a) (1) The rates for use of freight cars, except as provided in paragraph (b) of this rule, shall be based on time (per diem) and actual line-haul mileage charges as specified in the "Car Hire Rate Table" which shall be paid for every calendar day and actual line-haul mile, provided cars are registered with the Secretary, Operating-Transportation Division, as specified in paragraph (c), and shall be known as the car hire rates. Car hire must be reported to car owner within one (1) month and ten (10) days from the last day of the month in which it is earned including payment for cars on hand at the end of that month. When additions which result from records subsequently received are not reported to car owners and at the correct rates within two (2) months and ten (10) days from the last day of the month in which it is earned, the per diem and mileage rates shall be increased fifteen (15) percent per car day and per mile operated. (See Car Hire Rate Table following Rule 1B.)

(a) (2) In addition to the rates prescribed above, incentive per diem rates, as specified in the Incentive Rate Table, will be applicable on the following Mechanical Designations and Car Type Codes.

Mechanical Designation	XF-XM-XMI-XMHI			
Code Numbers	A120 A220 A320 A420	B100-109 B110-119 B120-129	B200-209 B210-219 B220-229	B300-309 B310-319 B320-329

Incentive Rate Table
(XM Applicable September through February only)

Line No.	Cost Bracket (1)	Group A 0-5 Years (2)	Group B 6-10 Years (3)	Group C 11-15 Years (4)	Group D 16-20 Years (5)	Group E 21-25 Years (6)	Group F 26-30 Years (7)	Group G Over 30 Years (8)
1	\$0-1,000	\$0.32	\$0.27	\$0.23	\$0.17	\$0.11	\$0.06	\$0.04
2	1-3,000	0.65	0.54	0.44	0.33	0.23	0.12	0.07
3	3-5,000	1.30	1.09	0.88	0.67	0.46	0.25	0.14
4	5-7,000	1.95	1.63	1.32	1.00	0.68	0.37	0.21
5	7-9,000	2.60	2.18	1.75	1.33	0.91	0.49	0.28
6	9-11,000	3.25	2.72	2.19	1.67	1.14	0.61	0.35
7	11-13,000	3.90	3.26	2.63	2.00	1.37	0.74	0.42
8	13-15,000	4.54	3.81	3.07	2.33	1.60	0.85	0.49
9	15-17,000	5.19	4.35	3.51	2.67	1.82	0.98	0.56
10	17-19,000	5.84	4.89	3.95	3.00	2.05	1.11	0.63
11	19-21,000	6.49	5.44	4.39	3.33	2.28	1.23	0.70
12	21-23,000	7.14	5.98	4.82	3.67	2.51	1.35	0.77
13	23-25,000	7.79	6.53	5.26	4.00	2.74	1.47	0.84
14	25-27,000	8.44	7.07	5.70	4.33	2.96	1.60	0.91
15	27-29,000	9.09	7.61	6.14	4.67	3.19	1.72	0.98
16	29-31,000	9.74	8.16	6.58	5.00	3.42	1.84	1.06
17	31-33,000	10.39	8.70	7.02	5.33	3.65	1.96	1.12
18	33-35,000	11.04	9.24	7.46	5.67	3.88	2.09	1.19
19	35-37,000	11.69	9.79	7.89	6.00	4.10	2.21	1.26
20	37-39,000	12.33	10.33	8.33	6.33	4.33	2.33	1.33
21	39-41,000	12.98	10.88	8.77	6.67	4.56	2.46	1.40

(a) (3) The Code of Car Hire Rules will apply to such incentive per diem charges in the same manner and with the same effect as they do to car hire charges (See Note). Penalty as described in Rule 1 (a) (1) will also apply to incentive per diem.

Note: Ex Parte 252, Sub. No. 1, Appendix B.- Mexican owned cars used in the United States and United States owned cars used in Mexico are exempt from the application of incentive per diem rates.

(b) (1) The car hire rates paid to United States and Canadian railroads for the use of their freight cars in the Republic of Mexico shall be the same as those specified in Rule 1(a), plus an increment to cover the then prevailing Mexican Government income and mercantile taxes. The increment is added to insure that a car owner receives a net payment (after taxes are withheld) not less than that which would have been received had the equipment not been utilized in Mexico.

Note: The appropriate rates including provision for the taxes may be determined by dividing the car hire rates specified in Rule 1(a) (or totals thereof) by .86.

(b) (2) The rates for the use in the United States of freight cars owned by Mexican railroads which are "Non-Resident Foreign Corporations" under the United States revenue laws, shall be the same as those specified in Rule 1(a) except that the car hire rate or rates are equivalent to seventy (70) percent of the applicable rate or rates. The increment added to the rates provided in Rule 1(a) is to cover income taxes on such car hire earnings payable to the United States Government by or for account of the respective car owners. The full rate or rates including tax may be determined by dividing the car hire rates by seventy (70) percent.

In the application of this paragraph, Mexican roads are classified as follows:

Domestic (U. S.) Corporations:

Inter-California Ry.

Nacozari R. R.

San Diego & Arizona Eastern Ry. Co.

Non-Resident Foreign Corporations:

F. C. Chihuahua al Pacifico, S. A. (Chihuahua Pacific Ry.)

F. C. Mexicano del Pacifico, S. A. (Mexican Pacific Railroad Co., Inc.)

F. C. Nacionales de Mexico (National Railways of Mexico)

F. C. del Pacifico, S. A. de C. V. (Pacific Railroad)

F. C. Sonora-Baja California (Sonora Baja California)

F. C. Unidos del Sureste (Sureste Railway)

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT—CONTINUED.

RULE 1—Continued.

•(c) (1) Individual freight cars shall be assigned their appropriate car hire rates as shown in the "Car Hire Rate Table" by means of the Car Hire Master List of such cars and supplements thereto issued by the Operating-Transportation Division. A railroad listing its freight cars in the Car Hire Master List and supplements thereto must list all of its freight cars used in interchange or commercial service. The car hire rates shown in the "Car Hire Rate Table" will apply to such cars for which description is furnished to the Secretary, Operating-Transportation Division, as required in the Universal Machine Language Equipment Register (UMLER) format. Such information received by the Secretary by the last working day of the month will be effective the first day of the month in which received.

•(c) (2) To recover the difference for correction of errors, including improper registration of mechanical designation, (See Note 2) and changes in estimated values that result in a retroactive increase in car hire rates an owner must, within five months from the month of the change, issue a statement to the using carriers. The statement must show month earned, month allowed, the difference in rates and a deduction of thirty (30) percent to reimburse the handling road its audit and associated reclaim expense. This statement constitutes a valid Car Hire Claim without penalty and must be handled within the time limitations of Car Hire Rule 11.

•(c) (3) When an owner changes the registration classification from estimated to actual and the change results in a retroactive decrease in the car hire rates it will notify the Secretary and within five months from the date of the change reimburse the excess collections and allow penalty as described in Rule 1 (c) (2) on the reimbursements. The Secretary will periodically request an owner having equipment registered on an estimated basis to verify that they are as yet unable to furnish the actual values.

•(c) (4) Once cars have been reported to the Secretary, corrections, including changes in mechanical designations, that result in a retroactive decrease in the car hire rates will be identified by the Secretary and the car owner will be required to furnish the Secretary documented proof that the change was the result of an actual value decrease or change in mechanical designation and within five months from the date of notification by the Secretary reimburse any excess collections. Penalty as described in Rule 1 (c) (2) will be paid on the reimbursements.

•Note 1—The Director of Auditing of the AAR will periodically verify that cars with an estimated value residing in the UMLER file are, in fact, still eligible for this type of registration. He will also check for deficiencies in the reimbursement procedures.

•Note 2—The statement prescribed in Rule 1 (c) (2) for correction of errors must be issued within five months from the month in which the error was originally made.

•Note 3—Since reclaim costs are recaptured under the provisions of these rules, reclaims to recover rate differences on this equipment will not be presented.

•Note 4—The provisions of Sub-paragraph 2, 3 and 4 relating to reimbursements and the recovery of additional amounts will not apply to Class I and II switching roads, except when cars of their ownership may be involved.

•Note 5—In order to make appropriate reimbursements to car users, car owners will retain records as to their car hire receipts for three (3) full calendar years prior to the current year.

•(c) (5) Refer to Circular No. OT-37 Series for rules governing valuation and age of rebuilt and secondhand cars for the purpose of car hire calculations.

•(c) (6) Refer to appropriate section of Circular No. OT-5 Series for rules governing the assignment of mechanical designations to freight cars.

(d) (1) A railroad may place its refrigerator cars of class "R" Mechanical Designation, LRC cars and tank cars upon a mileage basis upon notice to the Secretary, Operating-Transportation Division, providing description of such cars is furnished to the Secretary as required in the Universal Machine Language Equipment Register (UMLER) format. The Secretary will advise all interested carriers accordingly, stating the effective date, which shall be the first day of the second month following the date of notice to the Secretary. When a railroad exercises the above option, it must place all of its LRC or tank cars on a mileage basis. A railroad is not required to place its total ownership of Class "R" refrigerators on a mileage basis, but may place all of its cars of a particular Mechanical Designation on a mileage basis and permit its refrigerators of other Class "R" Mechanical Designation to operate under the time and line haul mileage charges as specified in the "Car Hire Rate Table." Such arrangement must remain in effect at least one (1) year and thereafter may be cancelled on the first day of the second month following the date of notice to the Secretary.

(d) (2) Refrigerator cars of Class "R" and tank cars of Class "T" Mechanical Designations, also "LRC" cars, carrying railroad reporting marks, when placed on a mileage rather than car hire basis of compensation by the car owner in accordance with Rule 1 (d) (1), will be subject to the rates shown in Mileage Tariff No. 7, reissues or supplements thereto, or Canadian Freight Association Freight Tariff No. 44, where applicable, in respect to movements within Canada.

(d) (3) Railroads electing to place their tank cars on a mileage basis must submit in the UMLER format information to the Secretary, Operating-Transportation Division, A.A.R., for assignment of mileage rates and publication of cars in the "Car Hire Master List."

Note 1—The following roads have placed their refrigerator cars, identified by reporting mark and mechanical designation, on a mileage basis under the provisions of this rule.

Railroad	Date Effective
Atchison, Topeka & Santa Fe (SFRD)-RS	7-1-71
Bangor & Aroostook (BAR)-RB-RBLH-RS	9-1-50
Burlington Northern (BN)-RB; (BRE)-RS; (MNR)-RSM;	
(NP)-RB; (RBW)-RB; (WFB)-RSB; (WFE)-RS; (WHI)-RS-RB;	
(WOB)-RA	10-1-75
Sacramento Northern (SN)-RBL	12-1-61
San Luis Central (SLC)-RB	6-1-75
San Luis Central (SLC)-RS	10-1-71
Western Pacific (WP)-RBL	7-1-56

Note 2—The following roads have placed tank cars of their ownership on a mileage basis under the provisions of this rule.

Railroad	Date Effective
Cape Fear Railways, Inc.	7-1-65
Roscoe, Snyder & Pacific	9-1-59
Southern Ry. System	12-1-64

RULE 1A

The car hire rates applicable to railroad freight cars interchanged by a subscriber with a common carrier by water for the days such cars are in possession of the water carrier and until such cars are again interchanged to a subscriber shall be the rate prescribed by RULE 1, subject to the free and unrestrained right of independent action accorded subscribers by Section XII of the Section 5a Agreement dated January 1, 1971, or such rate as may from time to time be lawfully prescribed by the Interstate Commerce Commission.

RULE 1B

A subscriber interchanging railroad freight cars with a common carrier by water shall pay the car hire for the days such cars are in the possession of the water carrier and until such cars are again interchanged to a subscriber.

THE OFFICIAL RAILWAY EQUIPMENT REGISTER

CAR HIRE RATE TABLE As Prescribed in I.C.C. Docket No. 33145													
COST BRACKET (SEE NOTE 1) (DOLLARS)	0-30 YEARS	0-5	6-10	11-15	16-20	21-25	26-30	OVER 30 YEARS					
		YEARS	YEARS	YEARS	YEARS	YEARS	YEARS	CHARGE PER LINE-HAUL MILE (CENTS)	DAILY TIME CHARGE (DOLLARS)				
		DAILY TIME CHARGE (DOLLARS)	DAILY TIME CHARGE (DOLLARS)	DAILY TIME CHARGE (DOLLARS)	DAILY TIME CHARGE (DOLLARS)	DAILY TIME CHARGE (DOLLARS)	DAILY TIME CHARGE (DOLLARS)						
000000 - 001000	2.31	1.47	1.43	1.39	1.35	1.31	1.27	2.24	1.20				
001001 - 002000	2.38	1.77	1.69	1.61	1.53	1.45	1.37	2.24	1.23				
002001 - 003000	2.51	2.36	2.20	2.04	1.89	1.73	1.57	2.24	1.28				
003001 - 004000	2.65	2.96	2.72	2.52	2.40	2.24	2.00	2.24	1.33				
004001 - 005000	2.78	3.55	3.23	2.92	2.60	2.28	1.97	2.24	1.38				
005001 - 006000	2.92	4.14	3.75	3.35	2.96	2.56	2.16	2.24	1.44				
006001 - 007000	3.05	4.74	4.26	3.79	3.31	2.84	2.36	2.24	1.49				
007001 - 008000	3.19	5.33	4.78	4.22	3.67	3.11	2.56	2.24	1.54				
008001 - 009000	3.32	5.93	5.29	4.66	4.02	3.39	2.76	2.24	1.60				
009001 - 010000	3.45	6.52	5.81	5.09	4.38	3.67	2.96	2.24	1.65				
010001 - 011000	3.59	7.11	6.32	5.53	4.74	3.95	3.15	2.24	1.70				
011001 - 012000	3.72	7.71	6.84	5.97	5.09	4.22	3.35	2.24	1.75				
012001 - 013000	3.86	8.30	7.35	6.40	5.45	4.50	3.55	2.24	1.81				
013001 - 014000	3.99	8.90	7.87	6.84	5.81	4.78	3.75	2.24	1.86				
014001 - 015000	4.13	9.49	8.38	7.27	6.16	5.05	3.95	2.24	1.91				
015001 - 016000	4.26	10.09	8.90	7.71	6.52	5.33	4.14	2.24	1.97				
016001 - 017000	4.40	10.68	9.41	8.14	6.88	5.61	4.34	2.24	2.02				
017001 - 018000	4.53	11.27	9.93	8.58	7.23	5.89	4.54	2.24	2.07				
018001 - 019000	4.67	11.87	10.44	9.02	7.59	6.16	4.74	2.24	2.12				
019001 - 020000	4.80	12.46	10.96	9.45	7.95	6.44	4.94	2.24	2.18				
020001 - 021000	4.93	13.06	11.47	9.89	8.30	6.72	5.13	2.24	2.23				
021001 - 022000	5.07	13.65	11.99	10.32	8.66	7.00	5.33	2.24	2.28				
022001 - 023000	5.20	14.25	12.50	10.76	9.02	7.27	5.53	2.24	2.34				
023001 - 024000	5.34	14.84	13.02	11.19	9.37	7.55	5.73	2.24	2.39				
024001 - 025000	5.47	15.43	13.53	11.63	9.73	7.83	5.93	2.24	2.44				
025001 - 026000	5.61	16.03	14.05	12.07	10.09	8.10	6.12	2.24	2.49				
026001 - 027000	5.74	16.62	14.56	12.50	10.44	8.38	6.32	2.24	2.55				
027001 - 028000	5.88	17.22	15.08	12.94	10.80	8.66	6.52	2.24	2.60				
028001 - 029000	6.01	17.81	15.59	13.37	11.15	8.94	6.72	2.24	2.65				
029001 - 030000	6.15	18.40	16.11	13.81	11.51	9.21	6.92	2.24	2.71				
030001 - 031000	6.28	19.00	16.62	14.24	11.87	9.49	7.11	2.24	2.76				
031001 - 032000	6.42	19.59	17.14	14.68	12.22	9.77	7.31	2.24	2.81				
032001 - 033000	6.55	20.19	17.65	15.12	12.58	10.04	7.51	2.24	2.86				
033001 - 034000	6.68	20.78	18.17	15.55	12.94	10.32	7.71	2.24	2.92				
034001 - 035000	6.82	21.38	18.68	15.99	13.29	10.60	7.91	2.24	2.97				
035001 - 036000	6.95	21.97	19.20	16.42	13.65	10.88	8.10	2.24	3.02				
036001 - 037000	7.09	22.56	19.71	16.86	14.01	11.15	8.30	2.24	3.08				
037001 - 038000	7.22	23.16	20.23	17.29	14.36	11.43	8.50	2.24	3.13				
038001 - 039000	7.36	23.75	20.74	17.73	14.72	11.71	8.70	2.24	3.18				
039001 - 040000	7.49	24.35	21.26	18.17	15.08	11.99	8.90	2.24	3.23				
040001 - 041000	7.63	24.94	21.77	18.60	15.43	12.26	9.09	2.24	3.29				
041001 - 042000	7.76	25.53	22.29	19.04	15.79	12.54	9.29	2.24	3.34				
042001 - 043000	7.90	26.13	22.80	19.47	16.15	12.82	9.49	2.24	3.39				
043001 - 044000	8.03	26.72	23.32	19.91	16.50	13.09	9.69	2.24	3.45				
044001 - 045000	8.17	27.32	23.83	20.34	16.86	13.37	9.89	2.24	3.50				
045001 - 046000	8.30	27.91	24.35	20.78	17.21	13.65	10.08	2.24	3.55				
046001 - 047000	8.43	28.51	24.86	21.22	17.57	13.93	10.28	2.24	3.60				
047001 - 048000	8.57	29.10	25.38	21.65	17.93	14.20	10.48	2.24	3.66				
048001 - 049000	8.70	29.69	25.89	22.09	18.28	14.48	10.68	2.24	3.71				
049001 - 050000	8.84	30.29	26.41	22.52	18.64	14.76	10.88	2.24	3.76				
050001 - 051000	8.97	30.88	26.92	22.96	19.00	15.04	11.07	2.24	3.82				
051001 - 052000	9.11	31.48	27.44	23.39	19.35	15.31	11.27	2.24	3.87				
052001 - 053000	9.24	32.07	27.95	23.83	19.71	15.59	11.47	2.24	3.92				
053001 - 054000	9.38	32.67	28.47	24.27	20.07	15.87	11.67	2.24	3.97				
054001 - 055000	9.51	33.26	28.98	24.70	20.42	16.14	11.87	2.24	4.03				
055001 - 056000	9.65	33.85	29.50	25.14	20.78	16.42	12.06	2.24	4.08				
056001 - 057000	9.78	34.45	30.01	25.57	21.14	16.70	12.26	2.24	4.13				
057001 - 058000	9.91	35.04	30.53	26.01	21.49	16.98	12.46	2.24	4.19				
058001 - 059000	10.05	35.64	31.04	26.44	21.85	17.25	12.66	2.24	4.24				
059001 - 060000	10.18	36.23	31.56	26.88	22.21	17.53	12.86	2.24	4.29				
060001 - 061000	10.32	36.82	32.07	27.32	22.56	17.81	13.05	2.24	4.34				
061001 - 062000	10.45	37.42	32.59	27.75	22.92	18.08	13.25	2.24	4.40				
062001 - 063000	10.59	38.01	33.10	28.19	23.27	18.36	13.45	2.24	4.45				
063001 - 064000	10.72	38.61	33.62	28.62	23.63	18.64	13.65	2.24	4.50				
064001 - 065000	10.86	39.20	34.13	29.06	23.99	18.92	13.85	2.24	4.56				
065001 - 066000	10.99	39.80	34.65	29.49	24.34	19.19	14.04	2.24	4.61				
066001 - 067000	11.13	40.39	35.16	29.93	24.70	19.47	14.24	2.24	4.66				
067001 - 068000	11.26	40.98	35.68	30.37	25.06	19.75	14.44	2.24	4.71				
068001 - 069000	11.40	41.58	36.19	30.80	25.41	20.03	14.64	2.24	4.77				
069001 - 070000	11.53	42.17	36.70	31.24	25.77	20.30	14.84	2.24	4.82				
070001 - 071000	11.66	42.77	37.22	31.67	26.13	20.58	15.03	2.24	4.87				
071001 - 072000	11.80	43.36	37.73	32.11	26.48	20.86	15.23	2.24	4.92				
072001 - 073000	11.93	43.95	38.25	32.54	26.84	21.13	15.43	2.24	4.98				
073001 - 074000	12.07	44.55	38.76	32.98	27.20	21.41	15.63	2.24	5.03				
074001 - 075000	12.20	45.14	39.28	33.42	27.55	21.69	15.83	2.24	5.08				
075001 - 076000	12.34	45.74	39.79	33.85	27.91	21.97	16.02	2.24	5.14				
076001 - 077000	12.47	46.33	40.31	34.29	28.27	22.24	16.22	2.24	5.19				
077001 - 078000	12.61	46.93	40.82	34.72	28.62	22.52	16.42	2.24	5.24				
078001 - 079000	12.74	47.52	41.34	35.16	28.98	22.80	16.62	2.24	5.29				
079001 - 080000	12.88	48.11	41.85	35.59	29.34	23.08	16.82	2.24	5.35				
080001 - 081000	13.01	48.71	42.37	36.03	29.69	23.35	17.01	2.24	5.40				
081001 - 082000	13.14	49.30	42.88	36.47	30.05	23.63	17.21	2.24	5.45				
082001 - 083000	13.28	49.90	43.40	36.90	30.40	23.91	17.41	2.24	5.51				
083001 - 084000	13.41	50.49	43.91	37.34	30.76	24.18	17.61	2.24	5.56				
084001 - 085000	13.55	51.09	44.43	37.77	31.12	24.46	17.81	2.24	5.61				
085001 - 086000	13.68	51.68	44.94	38.21	31.47	24.74	18.00	2.24	5.66				
086001 - 087000	13.82	52.27	45.46	38.64	31.83	25.02	18.20	2.24	5.72				
087001 - 088000	13.95	52.87	45.97	39.08	32.18	25.30	18.40	2.24	5.77				
088001 - 089000	14.09	53.46	46.49	39.52	32.54	25.57	18.60	2.24	5.82				
089001 - 090000	14.22	54.06	47.00	39.95	32.90	25.85	18.80	2.24	5.88				
090001 - 091000	14.36	54.65	47.52	40.39	33.26	26.12	18.99	2.24	5.93				
091001 - 092000	14.49	55.24	48.03	40.82	33.61	26.40	19.19	2.24	5.98				
092001 - 093000	14.63	55.84	48.55	41.24	33.97	26.68	19.39	2.24	6.03				
093001 - 094000	14.76	56.43	49.06	41.69	34.33	26.96	19.59	2.24	6.09				
094001 - 095000	14.89	57.03	49.58	42.13	34.68	27.23	19.79	2.24	6.14				
095001 - 096000	15.03	57.62	50.09	42.57	35.04	27.51	19.98	2.24	6.19				
096001 - 097000	15.16	58.22	50.61	43.4									

CODE OF CAR HIRE RULES AND INTERPRETATIONS—FREIGHT—CONTINUED.

RULE 2

Days shall be reckoned by subtracting the date of receipt from the date of delivery. The day of receipt shall be disregarded and payment made for day of delivery.

Line haul mileage will be computed for loaded and empty movement on the basis of actual line-haul miles.

Records of receipt and delivery under this rule shall be those obtained from the reports provided for in Rule 9.

RULE 3

Intentionally not used.

RULE 4 (Change effective January 1, 1974 shown by symbol ●.)

● (a) Empty cars handled under revenue billing in line haul or switching service are exempt from car hire charges.

(b) Car hire charges will be allowed on cars out of service for repair, unfit for service or lying idle except as provided for in Car Hire Rules 7 and 8.

RULE 5 (Change effective November 1, 1975 shown by symbol ●.)

(a) An amount (Note 1) for each loaded car handled in Terminal Switching Service except as otherwise provided in paragraph (b) may be reclaimed by each individual switching road from the road for which the service was performed. In determining the amount, an average number of days not to exceed five (5) shall be used. The average number of days shall be determined annually, or at such other periods as may be agreed upon by the interested roads, by an examination of the records (Note 2) of each individual switching road for each local territory. However, on the request of the majority of the interested roads in any local territory, the settlement of terminal switching reclaims will be on the basis of actual time involved in handling of cars during the month for which the reclaim is made subject to a maximum of (8) days on any one car and the maximum average of five (5) days per car.

(a) (1) An amount (Note 1) for each car loaded or empty handled in Intermediate Switching Service, except as otherwise provided in paragraph (e), may be reclaimed from the delivering carrier. In determining the amount, an average not to exceed one (1) day shall be used. The average shall be determined annually, or at such periods as may be agreed upon by the interested roads, by an examination of records (Note 2) of each individual switching road for each local territory. However, on the request of the majority of the interested roads in any local territory, the settlement of intermediate reclaims may be made on the basis of actual time involved in handling of cars during the month for which reclaim is made and, except as provided in paragraph (e), may reclaim from delivering road one (1) day's car hire only on any car on which car hire accrues while in intermediate switching service.

(a) (2) When the provision for actual time reclaim calculation is exercised, it must remain in effect for a minimum of one (1) year.

(b) An amount (Note 1) equal to the actual car hire accruing on each car loaded with livestock handled in switching service (but not including cars loaded with emigrant movables or exhibition livestock, which are subject to Section (a) of this rule) may be reclaimed by each individual switching road from the road for which the service was performed, provided that such reclaim shall not exceed one (1) day on any one car.

(c) A terminal switching road delivering a car to an intermediate switching road for delivery to a carrier road shall pay the reclaim to the intermediate switching road and may reclaim such amount from the carrier road for which the service was performed.

(d) No reclaim shall be allowed for an interterminal switching movement.

(e) Unless otherwise unanimously agreed to by the interested roads, the Code of Switching Reclaim Rules-Freight of the Association of American Railroads shall govern in determining switching reclaim allowances.

(f) When checks for the purpose of establishing or revising arbitraries under the provisions of Car Hire Rule 5 are made under the supervision of the Association of American Railroads, the cost will be prorated among the interested lines on the basis of the number of cars handled in terminal switching service for each line during the year covered by the check, unless otherwise unanimously agreed.

(f) (1) When checks are made to establish arbitraries on cars handled in intermediate switching service, the cost will be prorated among the interested lines on the basis of the number of cars handled in that service for each line.

(f) (2) When checks are made covering cars handled in both terminal and intermediate switching service to establish arbitraries, the expense will be separately prorated among the interested lines on the basis of the number of cars handled for each line in each class of service.

(f) (3) When checks for the purpose of establishing or revising arbitraries under the provisions of Car Hire Rule 5 are requested, the arbitraries so established or revised shall become effective on the first day of the month following such request. When a check is initiated by the Association of American Railroads, the arbitraries so established or revised shall become effective on the first day of the month following completion of the check.

NOTE 1:—The word "amount" as used in this rule shall be the product of (1) average time established as an arbitrary, or actual time, subject to maximums provided in this Rule, and (2) the actual car hire rate on each car handled in switching service.

NOTE 2:—The examination of records, to determine switching reclaim allowances applicable between short line railroads less than one hundred miles in length, and connecting carriers, shall be supervised by the General Committee, Operating-Transportation Division, Association of American Railroads, and that Committee may initiate these examinations.

INTERPRETATIONS

5 (a) Question:—Does Car Hire Rule 5 apply when Car Hire switching charge is assessed on a ton instead of a car basis?

Answer:—Yes.

5 (b) Question:—Carrier road "A" delivers a loaded car to road "B" to be switched by the latter to industry on its line for unloading. Before the car is unloaded and without changing the load in any manner, it is ordered to road "C" where it is unloaded at an industry located on road "C" within the same switching limits. Road "B" receives two switching charges for handling the car, and road "C" also receives a switching charge. Is road "B" entitled to a reclaim from road "A" in view of the fact that the car was not unloaded? If not, is road "C" entitled to reclaim from road "A"?

Answer:—Road "B" is entitled to reclaim from road "A." The movement from road "B" to road "C" comes within the definition of interterminal switching service and no reclaim should be allowed.

5 (c) Question:—Carrier road "A" delivers a loaded car to road "B" for switching movement to consignee. Consignee refuses car on account of quality and car is returned to road "A" to await disposition. Shipper orders car to an industry on road "C" within same switching limits, at which point it is unloaded. Is this an intermediate switch and reclaim due road "C" or should road "B" collect reclaim?

Answer:—Road "B" is entitled to reclaim from road "A" for the original inbound movement. The return movement from road "B" to "A" to "C" was interterminal switching and no reclaim should be allowed.

5 (d) Question:—Carrier road "A" delivers a loaded car to road "B" for switch movement to consignee. After car is placed for unloading, carrier road "A" instructs road "B" to re-card car to a point beyond the switching limits via road "C". Is road "B" entitled to a reclaim from road "A" on the inbound movement and another reclaim from road "C" for the outbound movement?

Answer:—Yes.

5 (e) Question 1:—If a check of the records to establish the reclaim allowance under Car Hire Rule 5 has not been made within a period of one (1) year and the interested road/roads makes a request for such check, is it the intention of the rule that the check shall be made?

Answer:—Unless there is an agreement to the contrary, a road may demand a check of the records to determine the arbitrary reclaim under Car Hire Rule 5 when switching road has twelve (12) consecutive months of records available immediately prior to the requested date of check that have not been previously included in Rule 5 Study; then the other road/roads interested at that point are obligated under the rule to participate in such check.

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT-CONTINUED.

RULE 5—Continued.

Question 2:—If one or more of the roads involved does not agree to join in such check, what action is necessary to secure compliance with the rule?

Answer:—(a) If a road performing switching service does not agree to have its records checked, the road making the request may give notice that it will not pay reclaims accruing after the date of such notice. The switching road will have no right to present further reclaims until a check has been made in accordance with the Code of Switching Reclaim Rules-Freight and the revised reclaim allowance established, which shall then apply to reclaims presented in accordance with Car Hire Rule 13 (a).

(b) If a carrier road does not agree to join in a check to establish a revised reclaim allowance, the switching road may give notice that it will check its records in accordance with the Code of Switching Reclaim Rules-Freight and thereby establish its revised reclaim allowance. After the date of such notice, the switching road will have the right to present reclaims in accordance with Car Hire Rule 13 (a) at such established reclaim allowance.

5 (f) Question:—Is the intermediate switching road entitled to reclaim when the car is not handled on a switching charge?

Answer:—Yes, except on cars on which the intermediate switching road participates in the freight rate and cars in interterminal switching movement.

5 (g) Question:—When is an empty car, moving over an intermediate switching road considered as in interterminal switching service?

Answer:—An empty car is considered in interterminal switching service—

(a) when, after having been received loaded in interterminal switching service and without having been diverted to other service, it is returned to intermediate road for movement to the originating road, to the owner, or to another road under proper authority;

(b) when furnished and used for loading in interterminal switching service.

5 (h) Question:—A car moving into a junction point over road "A" is delivered to road "B" for handling in terminal switching service in connection with stop or milling-in-transit tariff authority, road "B" not participating in the freight rate, and the shipment is subsequently delivered by road "B" to road "C" for outbound road movement. Should road "A" pay to the terminal switching road the unloading reclaim and road "C" pay to the terminal switching road the loading reclaims?

Answer:—Yes, regardless of subsequent adjustments or switching charges.

5 (i) Question:—When a car stopped in transit under tariff authority is delivered to a switching road to partly unload or to complete loading, the switching road being allowed two terminal switching charges, i. e., one for the inbound and one for the outbound movement, is the terminal switching road entitled to two terminal switch reclaims?

Answer:—Yes.

5 (j) Question:—When a road, which participates in the freight rate, is allowed under tariff authority a terminal switching charge on a car handled in connection with stop or milling-in-transit service, is such road entitled to terminal switching reclaim?

Answer:—Yes, regardless of subsequent adjustments of switching charges.

5 (k) In considering the application of Car Hire Rule 22 on cars that are handled by a switching carrier in a situation where the switching carrier is holding cars in a pool and under conditions outlined in Car Hire Rule 22, the reclaims under Car Hire Rule 22 will include time from receipt by the switching carrier from a connecting line or, if picked up from road haul service, from the date of arrival at loading point on the switching carrier to date placed as evidenced by the demurrage report (See Note), or to the date storage charges commence less one (1) day.

Note:—The "date placed" for loading, referred to in Paragraph (k) of this rule, will be the date demurrage free time commences or the date released loaded, whichever comes first.

This time has no relation to the time included in the arbitrary reclaim presented under Car Hire Rule 5 and will not be included in the detention time used in arriving at the Rule 5 arbitrary days.

• When a check is made of a switching line for the purpose of establishing an arbitrary under Car Hire Rule 5, time to be included in the check shall be determined as set forth in Appendix A, Rule 6, Section 2, Paragraph (j).

RULE 6

In case a subscriber to the Car Service and Car Hire Agreement delivers a railroad owned freight car to a non-subscriber, it shall be responsible to the owner for the car hire accruing on the car while on such non-subscriber road. The owner will accept settlement for the use of the car only from the delivering subscriber.

Note:—Rule 6 applies only to cars interchanged within Canada or Mexico.

RULE 7

(a) When a car has been reported to the owner as destroyed, or badly damaged, the car hire shall cease from the date of such report, provided depreciated valuation statement is requested under provisions of Mechanical Division Interchange Rules.

(b) If, on receipt from owner of depreciated valuation statement provided by Mechanical Division Interchange Rules, road reporting the car decides to repair or send it home for repairs, car hire shall be reinstated from date of original report.

(c) 1. If the car is settled for at its depreciated value, or if the car owner desires to have it repaired by the road reporting it, car hire shall cease from the date of original report to owner.

2. If the road reporting car, restores it to service at owner's request, car hire will begin on the day following date on which car is released to service, but not later than sixty (60) days from date road reporting car agrees to restore it to service.

3. If the road reporting car, sends it home for repairs at owner's request, car hire shall cease from date of original report to owner until car leaves road on which damaged, whether on own wheels or loaded on another car, but not later than sixty (60) days from date owner requested car sent home.

4. Car hire shall not be paid by an intermediate road on a car moving home loaded on another car or cars.

(d) If the road reporting car orders material from owner under Mechanical Division Interchange Rules, the provisions of Car Hire Rule 8 shall apply.

INTERPRETATIONS

7 (a) Question:—Must report to owner, or damage to car, be made by the Mechanical Department?

Answer:—No, such reports may be made by any officer on behalf of the road on which the car was damaged, but same must be addressed to the party named in the car owner's instructions published in The Official Railway Equipment Register. Where the owner does not designate such a party, the report should be addressed to the party in charge of the owner's car records.

RULE 8

(a) When a car is detained awaiting receipt of repair material, which under Mechanical Division Interchange Rules must be obtained from the owner, car hire shall cease from the date after material is ordered from the owner until the day after it is delivered to line of road or company ordering same, as evidenced by shipping receipt or waybill.

(b) 1. When car is reported to owner under Mechanical Division Interchange Rule 108, car hire shall cease from date of report, provided Inspection Certificate required by Mechanical Division Interchange Rule 108 is furnished.

2. If owner authorizes the repair of car, and no repair material is required from owner, car hire shall begin after repairs are completed, but in no case beyond sixty (60) days from the date authority is given.

3. If repair material must be obtained from the owner under Mechanical Division Interchange Rules, car hire shall begin after repairs are completed, but in no case beyond sixty (60) days from date authority is given, plus the number of days intervening between the date material is ordered and the date on which material is shipped as evidenced by shipping receipt or waybill.

(c) If the road, on which car was damaged, at owner's request, sends the car home for repairs, car hire shall cease from date of original report to owner until date car leaves reporting road, but not to exceed sixty (60) days from date owner requested car sent home, whether on own wheels or loaded on another car.

(d) Car hire shall not be paid by an intermediate road on a car moving home on another car or cars.

(e) 1. Under paragraphs (a) and (b), if more than one order for material is made, the first order only shall stop the car hire.

CODE OF CAR HIRE RULES AND INTERPRETATIONS—FREIGHT—CONTINUED.

RULE 8—Continued.

2. In case all or any part of the material is duplicated by owner on account of the original shipment becoming lost before delivery to the reporting road, car hire shall cease from the date of the original order until the date on which the duplicate shipment is made as evidenced by shipping receipt or waybill.

INTERPRETATIONS

8 (a) Question:—Material is ordered from owner under Mechanical Division Interchange Rules, but, instead of shipping the material requested, owner authorizes the reporting road to substitute other material or to weld old parts. Should car hire cease from the date material was ordered until the date on which authority was given to substitute other material or to weld old parts?

Answer:—Yes.

RULE 9 (Change effective with November 1976 Service Month shown by symbol ●.)

(a) The Interchange Reports shall be made for each calendar day on the prescribed form shown in Appendix C of these rules. (See Note 1.) They shall close as of midnight and shall include all cars delivered on the date for which made. Columns 2, 3, 4, 5 and 10 must be filled. For days on which no cars are interchanged the reports shall read "No Cars Interchanged" except when agreed that reports shall be made only for days on which cars are interchanged.

● (b) Corrections to Interchange Reports shall be made on a form similar to that shown in Appendix D immediately upon the discovery of errors in reports which have already been forwarded to Car Accounting Officers; otherwise, corrections to be made on all copies of Interchange Reports before forwarding.

(c) Both Interchange and Correction Reports shall be made in quadruplicate by the use of carbon paper, two copies for each road involved, and shall be numbered consecutively for each connecting line, commencing with the first of each month; a separate series of numbers to be used for each form of report.

(d) Unless otherwise agreed, the report shall be signed by the proper representative of the delivering road and certified to by the proper representative of the receiving road after checking. The original with one copy shall be returned to the road making the report.

(e) Car Service Rule 7 governs the delivery of cars. The date and time of delivery of cars upon interchange tracks of connecting line shall, prima facie, be the date and time given by the delivering road. In cases where there are different standards of time at a junction, the time of the more easterly reckoning shall govern.

NOTE 1:—Sequence of information and extreme dimensions of report must be maintained as shown on form in Appendix C. Number of lines may be varied to agree with mechanical preparation of report.

RULE 10

(a) Except as provided in Paragraph (d), the Junction Report, as shown in Appendix E or F, shall be made for each day as promptly as possible after the receipt of the Interchange Report and shall be transmitted to car owners not later than the close of the second working day following receipt of Interchange Report.

(b) Junction Reports, as shown in Appendix E, will be printed on bond paper of pink color; the spaces to show the required information for each car (initials, car number, loaded or empty, month, day, time, delivered by _____ railroad to _____ railroad at _____ station), separated by ruled lines for cut-up interchange slips and punched with perforations $\frac{1}{16}$ -inch diameter.

(c) Roads may agree to exchange Junction Reports on standard mechanized punch cards, printed on paper of red color, conforming to the fields shown in Appendix F of these rules.

(d) Roads may, subject to acceptance by the A.A.R. Data Center, utilize the TRAIN System to provide junction information to car owners.

RULE 11 (Change effective with November 1976 Service Month shown by symbol ●.)

(Change effective with January 1977 Service Month shown by symbol ●●.)

SECTION 1. INSTRUCTIONS FOR MAKING AND HANDLING REPORTS

(a) Car hire reports shall be forwarded to car owners not later than the 10th day of the second month following that in which car hire accrued.

(b) A car hire report, shall be made on a form $8\frac{1}{2}$ in. by 11 in. with a minimum of $\frac{3}{4}$ inch binding space at the left hand side as shown in Appendix G. Report shall show the car number in full and shall be in number sequence. A car earning no car hire need not be reported. The number of columns may be varied to accommodate mechanical preparation.

(c) A Summary Report, shall be made on a form $8\frac{1}{2}$ in. by 11 in. with a minimum of $\frac{3}{4}$ inch binding space at the left hand side. The report shall show the car hire, reclaims and the total mileage earnings accruing on railroad-owned freight cars operated on a mileage basis and the total passenger equipment earnings as shown on sample report in Appendix H. Car hire shall be summarized separately for the current month, each voluntary month, and prior allowances.

(d) Only one report shall be furnished for each month.

● (e) Errors and omissions must be reported in an adjustment report separated between voluntary adjustments, prior penalty adjustments and prior non-penalty adjustments. Separate sheets shall be prepared for additions and deductions, but within each of the three adjustment categories described above, additions or deductions for more than one month may be shown on the same sheet. Penalty amounts shall not be included on this form. Such adjustment report shall be of the same size with the same binding space as that provided for the Car Hire Report (Appendix G), and shall contain the information reflected on Appendix I. The specific format of the report may be varied to accommodate mechanical preparation.

(f) Car hire allowed in error may be deducted in car hire reports forwarded within two (2) months and ten (10) days from the last day of the month for which the car hire was reported as having been earned, without requesting authority from car owners, but such deduction shall not be made after that period except by authority from the road to which the car hire is reported and claim therefore is presented in accordance with the provisions of this rule.

(g) Car hire reported and subsequently deducted in accordance with this rule, cancels such car hire and leaves the owner road in the same position as if the car hire had never been reported.

(h) Cars subject to incentive per diem rates shall be reported as required in Appendix "O".

SECTION 2. INSTRUCTIONS FOR MAKING AND HANDLING CLAIMS

● (a) Claims covering errors, including incorrect rates, or omissions in car hire reports shall be presented after three (3) months and within five (5) months from the last day of the month in which the car hire was earned, in compliance with other paragraphs of this Section. Information must be included on the claim in accordance with Appendix J, subject to size specification.

(b) A request for authority to deduct car hire reported as having been earned constitutes a valid claim when presented to car owner within five (5) months from the last day of the month for which the car hire was reported.

(c) Claims shall not be presented until all amounts previously reported have been properly credited. When the total days for which the applicable car hire received on any car is equal to or greater than the total number of days the car was off the owner's line, no claims for short days will be issued against any road.

(d) Claims for car hire shortage must show the applicable time and mileage rates. Proof of liability for claims issued is the absolute responsibility of the delivering road, and all items of information on all such claims must be verified before forwarding. Claims issued against a direct connection, point of interchange must be shown.

(e) If complete junction reports have not been received, claim should be filed against the road having apparently failed to furnish a report, and claimant should indicate that such information has not been received by inserting subsequent junction record, and show days allowed by that road.

(f) If complete junction reports have been received, claim should be filed against the road which apparently owes the car hire, as indicated by the claimant's record.

(g) A claim covering car ON HAND at beginning of month should show date of preceding junction or interchange movement instead of "OH". A claim covering car ON HAND at end of month shall show date of succeeding junction or interchange movement, and in the absence of latter, on line movement instead of "OH".

●● (h) A claim presented in accordance with the rule may be continued provided the car owner returns the claim to the road to which originally presented, or presents it to another road within a period of two (2) months from the last day of the six (6) month period allowed the road which handled

CODE OF CAR HIRE RULES AND INTERPRETATIONS—FREIGHT—CONTINUED.

RULE 11—Continued.

claim prior to reissuance. The number of days shown on the original claim may be increased by the car owner if investigation develops that the car hire is due from a road other than the road to which the claim was originally addressed.

(i) (1) Railroads will have the right of independent audit of the records of another railroad to determine if the number of miles paid to them is correct. Such audits will be permitted within a period not to exceed two (2) years from the receipt of the Car Hire Report for the service month involved.

(i) (2) When the AAR Director of Auditing has developed that a railroad is deficient in its mileage payment to the car owners and such railroad chooses to reprocess the car record data to correct its deficiencies, car owner will in such case have no less than six months from receipt of the reprocessed mileage allowances to conduct his own audit of the reprocessed car records and file claims.

(i) (3) In the event a road elects not to reprocess car records the car owner will have six months after receipt of the AAR Director of Auditing's report to begin his own audit of car records for the period included in the audit report.

(j) Claims properly presented in accordance with this rule which are not handled as provided in Section 3, shall become due and payable with double penalty added to the amount claimed upon presentation of a statement by claimant provided statement is presented by claimant within six months from the date amount claimed became due.

SECTION 3. INSTRUCTIONS TO ROAD RECEIVING CLAIMS

(a) A road initially receiving a claim from car owner must within eleven (11) months from the last day of the month in which car hire was earned: (1) pay all car hire claimed with resultant penalty in the next per diem report; (2) pay partial amount due with resultant penalty in the next per diem report, and disprove further responsibility with fully verified interchange record; (3) disprove any responsibility with fully verified interchange record, returning claim to car owner. This procedure will require that the car owner record payment received.

(b) If claim is not satisfied, car owner shall handle with the next delinquent road in accordance with Section 2.

(c) In case of dispute of the date of interchange, the receiving road will accept the delivering road's date or furnish proof to the contrary.

(d) A road receiving a claim from car owner must within six (6) months from the last day of the month that limits the reissue of such claim (as prescribed in Section 2, Paragraph (h)) handle as provided in Paragraph (a) (1), (2) and (3).

SECTION 4. ADJUSTMENT OF ERRORS DEVELOPED IN THE HANDLING OF CLAIMS

(a) Overpayment or erroneous payment of car hire as set forth in the following paragraphs of this section constitute a valid claim under the provisions of Section 3, above, and must be so handled.

(b) When car hire has been reported to other than car owner under incorrect initials or number or for the wrong month, which fact is developed in the investigation of a claim, the reporting road shall be responsible to car owner for car hire earned at the increased car hire rate in accordance with Rule 1, and shall have the privilege of continuing such claim for refund of car hire incorrectly paid regardless of the amount shown on original claim, from the road to which it was incorrectly reported.

(c) When car hire has been reported to car owner under incorrect initials or number, or for the wrong month, which fact is developed in the investigation of a claim, the reporting road shall deduct the car hire previously allowed and reallow the car hire plus penalty to the car owner.

(d) If such deduction of car hire from a car number leaves car owner short car hire on the number, the car owner shall have the privilege of continuing claim under the car number on which the deduction was made.

SECTION 5. ADJUSTMENT OF ACCOUNTING ERRORS

(a) Car hire deducted in error on a car on which car hire has not been earned or reported as having been earned can be restored without penalty. Penalty will not accrue on adjustments for correction of errors in addition of car hire on the car hire report or on transcription to summary report.

RULE 12

The settlement of amounts accruing for the use of cars shall be made monthly without regard to reclaims pending.

RULE 13

(Change effective with November 1975 Service Month shown by symbol ●.)

(a) Terminal and Intermediate Switching Reclaim Statements under Car Hire Rule 5 shall be prepared separately by stations, and presented within three (3) months from the last day of the month in which the car hire accrued, except that supplementary reclaim statements covering errors and/or omissions shall be presented within five (5) months from the last day of the

month in which the car hire accrued. Original and supplementary switching reclaim statements shall be allowed as presented not later than the tenth (10th) day of the second month following month in which reclaim is received.

The road paying a terminal or an intermediate switching reclaim may present exceptions to cover errors or adjustments therein, provided it is presented within three (3) months from the last day of the month in which the reclaim on which exception is made was received.

● However, exceptions and supplementary reclaims in connection with adjustment of revenue affecting switching charges may be presented by either road within three (3) months from the last day of the month in which final adjustment is made but exceptions to reclaims will not be allowed in connection with adjustment of charges for stop or milling-in-transit service.

The privilege of continuance of the exception shall cease when either road interested fails to return it to the other road within two (2) months from the last day of the month in which it was last received, the delinquent road to be responsible for the unadjusted amount.

NOTE:—Under this rule an intermediate reclaim shall not be supplementary to an original terminal reclaim or a terminal reclaim supplementary to an original intermediate reclaim.

(b) Reclaim under Car Hire Rule 14 shall be presented within three (3) months from the last day of the month in which disposition of car is received by the holding road, except where demurrage adjustment is involved, in which case reclaim shall be presented within three (3) months from the last day of the month in which the demurrage is cancelled or refunded. The road receiving reclaim shall present exceptions to the claimant within three (3) months from the last day of the month in which reclaim was received or allow the amount claimed in the next open Car Hire Report.

The privilege of continuance of reclaim thereafter shall cease when either road interested fails to return it to the other within two (2) months from the last day of the month in which it was last received, the delinquent road to be responsible for the unadjusted amount.

(c) Reclaim under Car Hire Rule 15 shall be presented within three (3) months from the last day of the month in which cars were delivered by the holding road. The road receiving reclaim shall check and present exceptions to the claimant within three (3) months from the last day of the month in which the reclaim was received and shall allow in the next open Car Hire Report the amount not covered by exceptions.

The privilege of continuance of reclaim thereafter shall cease when either road interested fails to return it to the other within two (2) months from the last day of the month in which it was last received, the delinquent road to be responsible for the unadjusted amount.

● (d) Reclaim under Car Hire Rule 22 shall be presented within three (3) months from the last day of the month in which the car hire accrued (see Note), except that supplementary reclaims covering errors and/or omissions shall be presented within five (5) months from the last day of the month car hire accrued. Original, supplementary and counter reclaims shall be allowed with or without deduction not later than the 10th day of the third month following month in which reclaim is received. Exceptions shall be presented to the claimant within nine (9) months from the last day of the month in which reclaim was received. Reclaims that are totally declined must be returned to the reclaiming road prior to the tenth (10th) day of the third month following month in which reclaim was received.

NOTE:—In case car hire accrued in more than one (1) month, the last calendar month will be considered as the month car hire accrued.

The privilege of continuance of reclaim thereafter shall cease when either road fails to return it to the other within two (2) months from the last day of the month in which it was last received, the delinquent road to be responsible for the unadjusted amount.

(e) The provisions of paragraphs (a), (b) or (c) will not prevent the continuance of any reclaim after the period named if it has been previously opened when the reclaim eventually rests upon some road other than the one originally addressed, except that the reclaim shall be presented to such other road within two (2) months from the last day of the month in which it was last received by claimant. Further handling shall be subject to the provisions of paragraphs (a), (b) and (c).

(f) Reclaims shall be made by the designated officer of the road which pays the car hire to the designated officer of the road from which the allowance is reclaimed, unless specifically agreed by the interested roads to permit the presentation and acceptance of such reclaims by local representatives.

(g) Where retroactive adjustments affecting car hire rates are made as a result of correcting errors, omissions or incorrect listing in the Master List, supplementary reclaims covering such adjustments shall be allowed if car hire is claimed by car owners within the time limits prescribed under Car Hire Rule 11, Section 2.

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT-CONTINUED.

RULE 13 — *Continued.*

(h) When reclaims are not handled with the reclaiming railroad within the time limits prescribed in paragraphs (a), (b), (c) and (d), the reclaim amount will be increased ten (10) per cent.

INTERPRETATION

13 (a) Question:—Does a blank or "nil" reclaim statement filed by a road with its connection constitute an original switching reclaim?

Answer:—No.

RULE 14 (Change effective with September 1976 Service Month shown by symbol *.)

Unless otherwise agreed, reclaim for car hire on a car due to a railroad error or shipper's cancellation of order shall be settled for as follows:

Section 1. On a car held at any point enroute to a billed destination, or customs port. (Billed destination or customs port, means any point within the switching limits thereof.)

(a) When a freight car is held at any point enroute to billed destination or customs port by reason of a railroad error which prevents proper forwarding or proper tender or delivery, notice to secure disposition of car (see Section 9), shall be sent or given by the holding road prior to midnight of the second day after receipt of or arrival of car. Upon doing this, the holding road may reclaim against the erring road for an amount at the established car hire rate from receipt of car to and including receipt of proper data. The return of the car to the delivering road prior to midnight of the second day after receipt, instead of holding car and notifying the delivering road, constitutes notice under this rule. If holding road neglects to send or give notice prior to midnight of the second day after receipt of or arrival of car, it will be entitled to reclaim only from the date such notice is sent or given.

(b) If the holding road receives necessary data to enable it to dispose of the car before taking action prescribed in paragraph (a), it is entitled to the same reclaim as though such action had been taken on the date the necessary data is received.

(c) When a loaded car is held enroute on order received from another railroad, and such detention is due to railroad error, the holding road will be entitled to reclaim against the erring road, an amount equal to the established car hire rate from the date such car was received at the station where held to and including the date on which disposition is received by the holding road.

NOTE:—Cars moving contrary to existing embargoes are subject to reclaim against the road which made the initial error, whether billing, rebilling or reconsigning carrier, regardless of wherever held provided proper notice is given.

(d) The provisions of this section will apply to railroad errors on cars handled in run through trains. Reclaim for the time portion of car hire amounts will be the same as that provided in Paragraphs (a), (b) and (c), except that if cars are returned to the delivering carrier, all car hire time amounts will be reclaimable from the erring carrier while such cars were on handling lines, excluding time at holding point, if any, resulting from handling line's failure to notify erring carrier within the time limits prescribed.

(e) The mileage portion of car hire amounts under this section will be reclaimable from the erring carrier to the extent of excess mileage incurred by the handling line as a result of such errors.

Section 2. On a loaded car held at any point within the switching limits of billed destination or customs port.

(a) When a loaded freight car is held at any point within the switching limits of billed destination or customs port by reason of a railroad error which prevents proper tender or delivery, notice to secure disposition of car (see Section 9), must be sent or given by the holding road prior to midnight of the fifth day after receipt of or arrival of car. Upon doing this, the holding road may reclaim against the erring road for an amount at the established car hire rate from date such car was received at the station where held to and including the date on which disposition is received by the holding road. A maximum of one additional day may be reclaimed if incurred to return or deliver such car to a road within the switching district where held.

(b) If holding road neglects to send or give notice as outlined in paragraph (a), but does send or give notice subsequent to midnight of the fifth day after receipt of or arrival of car, it will be allowed car hire for the first five (5) days and, in addition thereto, car hire for each day from date notice is sent or given to and including the date on which disposition is received.

(c) If the holding road receives necessary data for tender or delivery of car before taking action prescribed in paragraph (a) or (b), it is entitled to the same reclaim as though such action had been taken on the date the necessary data is received.

(d) The provisions of this section will apply to railroad errors on cars handled in run through trains. Reclaim for the time portion of car hire amounts will be the same as that provided in Paragraphs (a), (b) and (c), except that if cars are returned to the delivering carrier, all car hire time amounts will be reclaimable from the erring carrier while such cars were on handling lines, excluding time at holding point, if any, resulting from handling line's failure to notify erring carrier within the time limits prescribed.

(e) The mileage portion of car hire amounts under this section will be reclaimable from the erring carrier to the extent of excess mileage incurred by the handling line as a result of such errors.

Section 3. Errors involving empty cars delivered as loaded, or cars containing load or part load delivered as empty with no destination specified, or empty cars accompanied by non-revenue waybills delivered to another carrier.

(a) When a carrier delivers to another carrier a car accompanied by regular waybill or waybilling instructions indicating that car is loaded, and it develops that car is empty, the erring road is responsible to all the carriers handling the car for car hire paid to car owner provided freight charges have been voided in accordance with Railway Accounting Overcharge Mandatory Rule 64.

(b) Empty cars delivered for home route in error, empty cars delivered for return loading in error and cars delivered as empty with no destination specified which contain load or part load, are subject to reclaim against the delivering carrier, but only when held within the switching limits of stations where received. When cars are delivered in run through trains, such errors are subject to reclaim for all car hire against the erring carrier, even though the cars were not held within the switching limits of station where received.

NOTE:—Under paragraph (b) of Section 3 the procedure covering notification, prescribed in Sections 1 and 9 shall govern.

(c) Errors involving empty cars delivered to another road accompanied by non-revenue waybill showing destination and route, the erring road shall be responsible for charges as specified in Car Service Rule 5.

Section 4. Errors involving non-subscriber railroads in Canada and Mexico.

(a) When car hire charges are caused by error of a non-subscriber, responsibility for such charges shall be assumed by the subscriber accepting the car from the non-subscriber.

(b) When a car is held on non-subscriber railroad because of railroad error on the part of a subscriber, the delivering subscriber shall relieve the non-subscriber of the car hire involved and may reclaim under this rule from the erring road.

NOTE:—Under this section the procedure covering notification, prescribed in Sections 1, 2 and 9 shall govern.

Section 5. Errors involving railroads subject to car hire settlement as prescribed in Appendix B:

(a) When car hire charges are caused by error of such railroad, car hire shall be paid by the carrier responsible for the settlement of car hire with the car owner and billed against the erring road.

(b) When a car is held on such railroad because of an error not its own, the carrier responsible for the settlement of car hire with the car owner shall relieve such railroad of the car hire involved and may reclaim under these rules against the railroad responsible for the car hire.

NOTE:—Under this section the procedure covering notification, prescribed in Sections 1, 2 and 9 shall govern.

Section 6. Empty cars rejected by shipper:

When a car is delivered empty to a switching road for return loading and is returned empty by reason of shipper's cancellation of order or rejection, by shipper because unsuitable for loading as specified by the switching road, the switching road may reclaim against the road which furnished the car, for an amount at the established car hire rate accruing from receipt of car to its return, but not to exceed three (3) days.

Section 7. Eliminated effective 7-1-71.

Section 8. On a car held by reason of an improper or improperly applied permit to an embargo:

(a) When a road laying an embargo refuses to accept a car account improper or improperly applied permit to its embargo, it shall notify holding road, stating its exception to the permit, prior to midnight of the second day from date the car is delivered or tendered with necessary data for forwarding. If it neglects to give such notice, it shall be responsible for car hire for the number of days the car is held.

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT—CONTINUED.

RULE 14—Continued.

(b) When such notice of exception is sent or given to the holding road, it shall be sent or given by the holding road to the road on which the shipment originated, or was reconsigned or rebilled, prior to midnight of the second day after notice of exception is received. Upon doing this the holding road may reclaim against the road responsible for detention to the car, account improper or improperly applied permit, an amount at the established car hire rate, from date car is originally tendered, under paragraph (a) of this rule or under Car Hire Rule 15, to and including the date authority for delivery or disposal order is received.

(c) If the road holding car receives notice of exception from the road laying an embargo and neglects to send or give notice of exception to the road on which the shipment originated, or was reconsigned or rebilled, prior to midnight of the second day after notice of exception is received, it will only be entitled to reclaim from the date on which the notice of exception is sent or given to the road on which the shipment originated, or was reconsigned or rebilled.

Section 9 Notices.

(a) Under Sections 1, 2, 3(b), 4 or 5, when a notice is sent or given to other than the erring road, or under Section 8, when notice of exception to permit is sent or given by the holding road to other than the road responsible for detention to the car, and it is necessary for the road receiving the notice to transmit it to the erring road or the road from which the car was received, such notice must be sent or given not later than the next calendar day following its receipt. This procedure must be followed by each road involved until the erring road has been notified. A copy of the notice should be furnished to the road on which the car is being held and to the road requesting disposition if not the holding road. When part of the detention to the car is chargeable to the neglect of a road to so transmit notice, the erring road may reclaim from such road for the number of days in excess of one (1) that the car was delayed due to such negligence.

(b) The notice under Sections 1, 2, 3(b), 4, 5 or 9(a) of this rule shall be sent or given either by telegraph, by messenger in writing, or by telephone confirmed in writing, the same or following day, either to the agent or proper officer of the delivering or erring road, or may be sent to the agent at station where last reconsigned or rebilled, or if not reconsigned or rebilled, then to the agent at point of origin as indicated by the billing. Such notice must contain sufficient information to enable the erring road or the road to which notice is sent or given to identify the car and furnish disposition.

(c) The notice under Section 3 (a) of this rule shall be sent or given either to the agent or proper officer of the delivering road. The notice under Section 3 (b) shall be sent or given either to the agent or the road at the point where the shipment originated or was reconsigned or rebilled, or to the proper officer of such road. Notices shall be sent or given either by telegraph, by messenger in writing, or by telephone confirmed in writing, the same or following day.

(d) Disposition instructions shall be sent or given, either by telegraph, by messenger in writing, or by telephone confirmed in writing.

Section 10. General.

Rule 14 applies only to cars of railroad ownership including owner's cars on owner's tracks, but it does not apply to cars bunched in transit, cars detained on account of weather interference, cars refused by consignee due to damage in transit, or cars held under Car Service Rule 10.

RULE 15 (Change effective February 1, 1976 shown by symbol ●.)

● (a) Car Service Rule 7, Section (A), sets forth conditions that must be complied with for the interchange of cars between connections. Special arrangements between the roads involved are permissible to alter these conditions.

● (b) When interchange cannot be accomplished due to a road's failure to receive promptly from a connection cars on which it has laid no embargo, the receiving carrier shall be responsible to the connection for the car hire on cars so held for delivery, including the home cars of such connection.

● A road failing to receive promptly from a connection empty cars at home on its road, moving home under Car Service Rules, shall be responsible to the connection for double the car hire on such cars held for delivery after the first day for which reclaim is made.

● (c) If such failure to receive shall continue for more than three (3) days, the delinquent line shall thereafter, in

addition, be responsible for the car hire on all cars where-ever in transit, which are thus held back for delivery.

● (d) It shall be the duty of the connection intending to reclaim, to notify the designated representative of the delinquent line daily, by telephone and prior to midnight, of the total number of cars so held for them.

● The holding carrier must confirm, in writing, the offering made by furnishing the delinquent line a statement of the initials and numbers of the individual cars offered, within forty-eight (48) hours from midnight of the day notified.

(1) This statement shall be made in quadruplicate on, or summarized on and accompanied by the prescribed form shown in Appendix P of these rules and signed by the representative of the offering carrier. Columns 1, 2 and 3, must be completed. Upon receipt of the statement by the delinquent line, its representative must certify acceptance, with or without exception, by signing in the place provided. The original and one copy must be forwarded to the offering carrier's representative within thirty (30) days after the date of the report. Failure to forward the statement within the time provided will result in the subsequent reclaim covering specific cars indicated on report to be payable as presented by the offering carrier.

● (e) When the hour at which the receiving road clears the interchange track of all cars is so late that the delivering road cannot place on interchange track before midnight cars which it is holding for delivery, the receiving road shall be responsible for the Car Hire on such cars for the following day, subject to local agreement as to time required to make delivery.

(f) This rule shall apply in connection with loaded cars interchanged between a common carrier by water and a common carrier by railroad except where in conflict with applicable tariffs and divisional agreements.

(g) This rule shall apply in connection with empty cars interchanged between a common carrier by water and a common carrier by railroad.

● (h) When a road ceases operation due to strike condition which prohibits telephone notification, the provision for such notification as contained in paragraph (d) will not apply, however, the holding carrier must forward a listing of the cars held to the designated representative of the delinquent line within forty-eight (48) hours from midnight of the date offered, via postal service.

INTERPRETATIONS

15 (a) Question:—In case a car held for a certain road is not delivered to that road, can reclaim be made against such road?
Answer:—No.

15 (b) Question:—Is it necessary to furnish initials and numbers of cars held which have previously been reported by initials and numbers?
Answer:—No.

15 (c) Question:—When a road cannot accept cars from a connection, is it necessary for the connection to notify the delinquent line before midnight each day of the total number of cars held for which reclaim is to be made?
Answer:—Yes.

15 (d) Question:—When a road has invoked the provisions of Car Service Rule 6 and cars are offered to that road at another junction point, is the holding road entitled to reclaim under Car Hire Rule 16?
Answer:—No.

RULE 16

(a) Embargoes must be issued by the embargoing road in accordance with the provisions of the Embargo Regulations (Circular CSD-37) as issued by the Car Service Division.

(b) When a road gives notice that for any reason it cannot accept cars in any specified traffic, thereby laying an embargo, the following provisions will govern:

(1) An origin road may accept cars for movement to embargoed destinations only for two (2) days after the effective date of the embargo and then only for cars which were loaded or in the process of loading prior to the effective date of the embargo.

(2) The embargoing road should accept cars from connection which were originated in accordance with the provisions of paragraph "(1)" above, except when it is physically impossible to receive any traffic due to washouts, floods, accidents or other interruptions of service. When cars, properly loaded prior to or

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RULE 16—Continued.

within the two (2) days (See Note), are refused at any time during the effectiveness of the embargo, the road holding the cars may reclaim car hire under Rule 15, for the number of days such cars are held, not exceeding the duration of the embargo. For car hire reclaim regulations applying to cars refused account improper or improperly applied permits to embargoes, see Rule 14, Section 8.

(c) An embargo may not be laid on empty cars returning home in accordance with Car Service Rules.

NOTE:—The date of loading, diversion or reconsignment to be determined from the data accompanying the car.

RULE 17

To interpret these rules and to settle disputes arising under them, the General Committee, Operating-Transportation Division, shall act as an Arbitration Committee. Nine members shall be a quorum.

In case any question or dispute arises under these rules it may be submitted to the Arbitration Committee through the Secretary of the Operating-Transportation Division in abstract. The abstracts shall briefly set forth the points at issue and each party's interpretation of the rules upon which its claim is based. The Arbitration Committee shall base its decisions upon the rules and the abstract submitted, and its decisions shall be final. Should one of the parties refuse to furnish the necessary information, the Arbitration Committee shall use its judgment as to whether it can properly decide. All decisions shall be reported to the Association through the General Committee, Operating-Transportation Division.

In case a question shall arise not covered by the rules, the roads disagreeing may, by mutual consent, submit such questions to the Arbitration Committee.

The General Committee, Operating-Transportation Division, may appoint a Secretary for the Arbitration Committee, who shall be paid by the Association. The other expenses of the Arbitration Committee shall be divided equally between each of the parties to the dispute and the Association. The expenses shall be first paid by the Association, and then billed to the parties concerned by the Treasurer of the Association.

RULE 18 (Eliminated effective 1-1-74.)**RULE 19**

The Board of Directors of the Association of American Railroads shall establish a Car Service Division, headquartered in Washington, D. C., within the Operations and Maintenance Department to maximize the utilization of freight cars consistent with equitable distribution thereof, particularly in times and areas of car shortages. The Car Service Division shall be under the supervision of an Executive Director appointed by the Vice President, Operations and Maintenance Department, and, for the aforesaid purposes, shall be vested with plenary power to—

- (a) Supervise the application of Car Service and Car Hire Rules.
- (b) Suspend or permit departures from Car Service Rules 1 to 6, inclusive, except as provided in Rule 20.
- (c) Exempt when necessary, cars of any type from the provisions of Car Service Rules 1 to 6, inclusive, and provide other regulations under which such cars shall be handled.
- (d) Transfer cars from one railroad or territory to another when necessary to meet traffic conditions, consistent with car ownership and requirements.
- (e) Conduct investigations, including examination of car records, as may be necessary to insure the observance of Car Service and Car Hire Rules and of any orders and directives issued by the Car Service Division, and when deemed necessary or desirable, report all the facts with a recommendation to the General Committee, Operations and Maintenance Department.
- (f) Obtain car location statements and other car performance statistics as deemed necessary in carrying out its functions.
- (g) 1. Assess railroads for failure to comply with Car Distribution Orders, Directives and Special Car Orders issued by the Car Service Division when such orders or directives provide that the provisions of this Paragraph (g) shall apply thereto. The amount of assessment for failure to deliver cars in accordance with such Distribution Orders issued by the Car Service

Division shall be a minimum of \$50.00 for each car that is not delivered in accordance with the order. The amount of assessment for violation of such Directives and such Special Car Orders issued by the Car Service Division shall be a minimum of \$50.00 for each act which constitutes a violation. With prior approval of the President of the Association of American Railroads, and to be effective during any stated period of time, the amount of assessment herein authorized may be set by the Car Service Division at a level up to \$500.00. Notice of all changes in level above the \$50.00 minimum will be given to each railroad subject to this Rule at least five (5) days in advance of the effective date of such change.

2 Where the Executive Director of the Car Service Division shall have determined that a violation has occurred, he shall notify the Chief Operating Officer of the offending railroad in writing within 30 days of the date the violation was determined, detailing the facts and circumstances of such violations and of the amount assessed. Said railroad shall have 30 days from receipt of such notice to offer proof to said Executive Director that no violation occurred. Within 30 days thereafter, the Executive Director will advise the railroad of his decision. Within 30 days after receipt of an adverse decision, the railroad will either remit the amount of the assessment or request the Secretary, Operating-Transportation Division, to submit to arbitration, as hereinafter provided, the question whether the alleged violation did occur.

3. All funds received from the assessments provided for in this Paragraph (g) shall be payable to the Association of American Railroads and shall be placed in a separate account. The funds so collected shall be used to defray the expenses of the Car Service Division. The surplus in this account at the end of each calendar year shall be divided among the railroads beneficiary to the orders or directives on the following basis:

- (1) Total violations shall be counted.
- (2) Total violations which result in injury to each railroad shall be counted.
- (3) Each carrier shall be paid its ratio of item (2) to item (1) of the total amount to be distributed.

4. When arbitration has been requested, the dispute shall be presented to the Secretary, Operating-Transportation Division, by written abstract, which abstract shall be submitted within 30 days from the date on which arbitration was requested. The Committee on Car Service, Operating-Transportation Division, shall act as the Arbitration Committee. The Arbitration Committee may request oral presentation by both parties. To the extent practical, the Arbitration Committee will consider the dispute at its next regular scheduled meeting or at a special meeting. A majority of the membership of the Arbitration Committee shall constitute a quorum and a majority vote of those present shall govern. Members of the Arbitration Committee involved in the dispute being considered will be disqualified from discussing and voting on the dispute being considered. The Arbitration Committee, within 30 days after consideration of the dispute, shall render its decision upon the dispute and such decision shall be final.

(h) Perform such other duties as may be assigned by the Vice President, Operations and Maintenance Department.

RULE 20

Departure from Car Service Rules 1 to 6, inclusive, affecting Canadian Railway cars on United States Railroads, or United States Railroad cars on Canadian Railways, shall be only by agreement as between the Association of American Railroads and the Railway Association of Canada.

RULE 21

In addition to other charges for the use of railroad-owned freight cars, a loading charge shall be paid to railroad owners of cars of Mechanical Designation "FD", "FW" and "FM" for the use of such cars in each loaded movement, such charge to be prorated between the roads enjoying the loaded haul on the same percentage basis as the freight revenue applicable to the load, all charges to be reported in the regular car hire report.

The loading charge to be paid for the use of such cars is as follows:

Mechanical Designation	Capacity	Loading Charge Each Loaded Move
"FD"	Any Capacity	\$300.00
"FW"	Any Capacity	\$100.00
"FM"	200,000 Pounds and Over Nominal Capacity	\$100.00

NOTE:—See A.A.R. Car Service Division Circular CSD No. 439, supplements thereto or reissues thereof, for applicable regulations.

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT-CONTINUED.

RULE 22 (Change effective with July 1976 Service Month shown by symbol ●●.)

(Change effective with November 1976 Service Month shown by symbol ●.)

SECTION 1—RECLAIMS ON UNASSIGNED CARS

(a) Owner or lessee may, on authority from the transportation or other officer of the handling road, order unassigned cars (1) to a road for loading, (2) to be held empty at unloading point, (3) to another point for loading, and will allow car hire reclaim of all detention time, minus one day, from date of arrival at loading point, as evidenced by the car movement records, or from date released from inbound load to date placed for loading as evidenced by the demurrage report (see Note), excluding time of movement from point to point, except if cars are not loaded reclaims will be allowed for all car hire paid to the owner. When empty cars are held at other than the loading or unloading point with the concurrence of owner or lessee, reclaim will be allowed by owner or lessee for all detention time from date of arrival at holding point to date of departure from holding point, as evidenced by the car movement records. The handling road should maintain a record of the authority granted.

(b) When empty cars are ordered by the owner or lessee to move to or over a road without the concurrence of the transportation or other officers of that road and in violation of Car Service Rules, the owner will accept charges as specified in Car Service Rule 5.

SECTION 2—RECLAIMS ON CARS ASSIGNED IN ACCORDANCE WITH THE PROVISIONS OF CAR SERVICE RULE 16

(a) When owner or lessee orders cars which are assigned to a specific shipper, in accordance with the provisions of Car Service Rule 16 to a road for loading, reclaim for idle time while held at the loading point will be allowed from the date of arrival at the loading point, as evidenced by the car movement records, to the date placed for loading as evidenced by demurrage report (see Note), or to the date storage charges commence, less one day.

(b) When empty cars are held at a holding point short of the loading point, owner or lessee will allow per diem reclaim for all detention time attributable to conditions as stipulated in Car Service Rule 16, Section (B), from date of arrival at holding point to date of departure from holding point, as evidenced by the car movement records, excluding days cars are subject to storage charges.

(c) When empty cars are ordered home from a holding or loading point, reclaim for all car hire will be allowed from date of arrival at holding or loading point, as evidenced by the car movement records, to date delivered to owner, excluding days cars are subject to storage charges.

(d) When empty cars are ordered from a holding or loading point to a new loading point, reclaim will be allowed from date of arrival at holding or loading point to the date forwarded, as evidenced by the car movement records, excluding days cars are subject to storage charges.

(e) With the concurrence of all roads involved, agreements may be negotiated to allow reclaims on a proration of detention of all cars assigned by participating carriers in direct relation to the proportion of revenue received, or any other agreed upon basis.

●●(f) When partial relief from storage charges, under applicable tariff or I.C.C. Service Orders, is allowed to shippers, making the cars subject to reclaim in accordance with this rule, the amount and apportionment of the reclaim will be determined by converting the relief amount into reclaimable days, and multiplying the days by the average car hire rate of all cars assigned in the pool (exclusive of those cars not subject to storage charges). This amount will be prorated between car owners participating in the pool, on the basis of the number of cars assigned to the pool on the date relief from storage charges begins as shown in the pool operator's assignment records (also exclusive of those cars not subject to storage charges). Cars owned by the pool operator and assigned to the pool shall be included.

SECTION 3—RECLAIMS ON OTHER ASSIGNED CARS

(a) With the concurrence of the transportation or other officer of the holding road, assigned cars may be ordered to a road for loading. Reclaim for idle time while held at the loading point will be allowed from the date of arrival at the loading point, as evidenced by the car movement records, to the date placed for loading as evidenced by the demurrage report (see Note), or to the date storage charges commence, less one day.

(Provisions of paragraphs (b), (c), (d) and (e) of SECTION 2 will apply to these cars.)

SECTION 4—GENERAL

● Reclaims made under Sections 1 through 3 of this rule shall be prepared on a form similar to that shown in Appendix K and must be presented and handled within the time limits prescribed by Rule 13(d).

Note 1: Loading point, referred to in this rule, means any point within the limits of the switching district in which the industry being served is located.

Note 2: The date placed for loading, referred to in this rule, will be the date demurrage free time commences or the date released loaded, whichever comes first.

Note 3: When assignee is granted relief from storage charges as provided in service orders or tariffs, car owner will allow reclaim for the days car is so exempted from storage charges.

CODE OF CAR HIRE RULES AND INTERPRETATIONS—FREIGHT—CONTINUED.

APPENDIX A CODE OF SWITCHING RECLAIM RULES—FREIGHT

Definitions

Switching Roads, Carrier Roads, Switching Service, and Trap or Ferry Cars are defined as follows:

Terminal Switching Road

A terminal switching road is a road on whose rails, or on private tracks connecting therewith.

(a) A car, including a trap or ferry car, received from a carrier road, either direct or through an intermediate road, is unloaded, reconsigned or reshipped.

(b) A car, including a trap or ferry car, is loaded, reconsigned or reshipped, and delivered to a carrier road, either direct or through an intermediate road.

The service performed being within the designated switching limits and at a switching charge.

Intermediate Switching Road

An intermediate switching road is a road handling a car, including a trap or ferry car, from one railroad, steamship, ferry or barge line, to another railroad, steamship, ferry or barge line within designated switching limits (the car not being loaded or unloaded on the intermediate switching road), such road performing the service not participating in the freight rate.

Carrier Road

A carrier road is:

(a) A road which, participating in the freight rate, or which handles its own company material in road haul, on the inbound shipment, delivers a car, including a trap or ferry car, to a terminal switching road, either direct or through an intermediate switching road, for unloading, reconsigning or reshipping.

(b) A road which, participating in the freight rate, or which handles its own company material in road haul, on the outbound shipment, receives a car, including a trap or ferry car, from a terminal switching road, either direct or through an intermediate switching road, that has been loaded, reconsigned or reshipped by the terminal switching road.

Terminal Switching Service

The service performed by a terminal switching road, as defined in these rules.

Intermediate Switching Service

The service performed by an intermediate switching road, as defined in these rules.

NOTE:—An empty car returned in home route to a switching road, previously loaded, reconsigned or reshipped in terminal switching service by such road which is then delivered empty to another road within the same switching district will not be considered as handled in intermediate switching service.

Inter-Terminal Switching Service

The service performed in handling a car except a trap or ferry car, which has been loaded or reshipped within the switching limits on one road for unloading or reshipping within the same switching limits on another road and at a switching charge.

Trap or Ferry Car

A car, containing less than carload freight (including cotton), destined or originating beyond the switching limits of station at which loaded or unloaded on a switching road, the contents of which may or may not have been rehandled wholly or in part at freight house or platform located on carrier road within the switching limits of the station at which car is received from or delivered to the switching road.

RULES

RULE 1

The carrier road will allow the switching road a reclaim in accordance with Car Hire Rule 5.

RULE 2

No reclaim shall be allowed for an inter-terminal switching movement.

RULE 3

Rule 1 of this Code will not apply to cars which are delivered empty to a switching road for loading, and are returned empty to carrier road by reason of shippers' cancellation or order, or error on the part of carrier road, and to cars which are rejected by shippers account being unsuitable for specified loading when received from the carrier road. (See Car Hire Rule 14.)

RULE 4

The right of reclaim is not affected by the fact that in switching service the switching road may collect its charges from the shipper or consignee.

RULE 5

These rules apply only to cars subject to car hire basis of settlement, including cars owned by the switching road, except they shall not apply to cars loaded with company material (including company coal) for the use of the switching road.

RULE 6 (Change effective November 1, 1975 shown by symbol ●.)

Section 1. When the average number of days is used as the basis for settlement of terminal switching reclaims, the arbitraries to be allowed shall be based on the average time required by the switching road to switch cars for each individual road in the switching district involved. If unanimously agreed, the arbitrary to be allowed may be based on the average time required by the switching road to switch cars for all the roads considered as a whole. Arbitrarities shall be obtained from the records of the switching road as follows:

(a) A check covering twelve consecutive months shall be made under the direction of the Association of American Railroads, or otherwise as may be agreed upon between the roads interested.

(b) The check shall cover all loaded cars handled in terminal switching service for the months to be checked, except that, by unanimous agreement, the check may be confined to any ten-day period, which must be the same for each month checked.

The check shall not include:

(1) Cars loaded with live stock, but not excepting cars loaded with emigrant movables or exhibition live stock.

(2) Cars delivered loaded on or after the first day of the ten-day period, which were received loaded prior to that date, when a ten-day period is agreed upon.

(3) Cars in local, inter- or intraplant and/or inter-terminal switching services.

(4) Cars on which the required records are incomplete.

NOTE:—The exception applicable to cars loaded with livestock and cars in local, inter- or intraplant, and/or inter-terminal switching services, means that the car and detention thereto in such services, as well as while in terminal switching service, shall be excluded.

(c) The checks shall cover the latest twelve consecutive months' records that are available prior to the effective date of the arbitraries as provided in Car Hire Rule 5(f).

Section 2. In figuring detention, the days shall be computed as follows:

(a) Cars received loaded and returned empty to the road from which received or delivered empty to another road within the same switching district, and cars received empty and returned loaded to the road from which received or delivered loaded to another road within the same switching district, count from date received to date delivered (see Note).

(b) Cars received loaded and returned loaded to the road from which received, count from date received to date delivered. Cars received loaded from one road and delivered loaded to another road within the same switching district, count from date received to date delivered and divide the detention equally (see Note).

(c) Cars picked up from road haul service and placed in terminal switching service, count from date placed for loading as evidenced by the demurrage records to date delivered to outbound carrier as evidenced by the interchange reports, except when cars are shown placed between midnight and following 7:00 a. m., inclusive, count from next preceding date.

(d) Cars diverted from terminal switching service to road haul service, count from date of receipt as evidenced by the interchange reports to date released from inbound load as evidenced by the demurrage records. When 7:00 a. m. release date is shown, count car released as of 6:00 p. m. next preceding date (see Note).

(e) On cars handled in terminal switching service and subsequently reconsigned or reshipped in road haul service, count from date of receipt, as evidenced by the interchange reports, to date released, as evidenced by the demurrage records (see Note).

(f) On cars received in road haul service and subsequently reconsigned or reshipped in terminal switching service, count from date of release as evidenced by demurrage records, to date delivered to outbound carrier, as evidenced by interchange reports.

(g) Cars owned by, or which are at home on, the switching road, which are loaded in terminal switching service, count from date placed for loading as evidenced by the demurrage records to date delivered to outbound carrier as evidenced by the interchange reports, except when cars are shown placed between midnight and following 7:00 a. m., inclusive, count from next preceding date.

(h) Cars owned by, or which are at home on, the switching road, which are unloaded in terminal switching service, count from date of receipt as evidenced by the interchange reports, to date released from inbound load, as evidenced by the demurrage records. When 7:00 a. m. release date is shown count car released as of 6:00 p. m. next preceding date (see Note).

APPENDIX 9

SUGGESTED CLASS I CARRIER DEPARTMENTS TO CONTACT
REGARDING LIGHT DENSITY LINE MATTERS

Source: The Official Railway Guide, Vol. 108, Nos. 4 and 7,
January-February and July-August, 1976, (New York,
N. Y.: National Railway Publication Company).

CODE OF CAR HIRE RULES AND INTERPRETATIONS-FREIGHT-CONTINUED.

APPENDIX A-CONTINUED

RULE 6-Continued.

(l) Where an intermediate switching road is involved in the terminal switching movement, the receipt from or delivery to the intermediate road shall be considered as receipt from or delivery to the carrier road.

•(j) 1. Cars of foreign ownership, which are covered by Car Hire Rule 22, Sections 1 and 3 and loaded out in switching service shall count from the date of arrival or receipt at loading point, to date delivered, less days reclaimed under Car Hire Rule 22.

•2. Cars of foreign ownership which are covered by Car Hire Rule 22, Section 2: Days which are reclaimable under this rule and days subject to the assessment of storage charges shall not be included in the arbitrary calculations regardless of whether or not the switching road has protected reclaims and/or charges. A list of assigned cars as agreed to by the roads involved in the check shall be used in making this determination. Cars shall count from the date placed for loading as evidenced by the demurrage records to date delivered to outbound carrier as evidenced by the interchange reports, except when cars are shown placed between midnight and following 7:00 a.m., inclusive, count from the preceding date. (Calculation takes into account the "minus 1 day" in the Rule 22 reclaim computation.)

NOTE:-Cars held under Car Hire Rule 15: Compute detention from date offered as evidenced by Rule 15 reclaim statements.

Section 3. In computing detention in accordance with this rule, the detention of any car beyond eight (8) days shall be eliminated, except if a car received loaded is made empty, reloaded and returned to the road from which received or delivered to another road, the detention beyond sixteen (16) days shall be eliminated.

Section 4. The terminal switching reclaim allowance shall be determined by dividing the total detention, computed in accordance with this rule, by the total number of cars included in the check. Cars received loaded which are made empty, reloaded and returned to the road from which received, shall be counted as two (2) cars. The quotient to be expressed in two decimals, the second (2nd) decimal to be increased by one (1) when the third (3rd) decimal is five (5) or more.

Section 5. (a) When the average number of days is used as the basis of settlement of intermediate switching reclaims, the arbitraries to be allowed shall be based on the average time required by the switching road to switch both loaded and empty cars for each individual road. If unanimously agreed, the arbitrary to be allowed may be based on the average time required by the switching road to switch cars for all the roads considered as a whole. In developing arbitraries in accordance with this rule, tally shall include all cars, zero (0) and one (1) or more days, observing maximum of one (1) day on any car.

(b) The check shall cover all cars handled in terminal or intermediate switching service for the months to be checked, except that, by unanimous agreement, the check may be confined to any ten (10) day period, which must be the same for each month checked.

Section 6. (a) When the settlement of terminal switching reclaims is on the basis of actual time involved in handling cars during the month for which reclaim is made, reclaim days will be determined as set forth in Section 2 of this rule.

RULE 7

An Arbitration Committee may be appointed by interested roads in any local territory. All questions arising under these rules shall be submitted to such committee through its secretary, who shall briefly set forth the points at issue and each party's interpretation of the rule on which the claim is based. Should one of the parties to the dispute refuse to furnish information, such Arbitration Committee shall use its judgement as to whether it can properly decide the question at issue, and shall base its decision upon these rules or as modified under agreement between the roads interested and the abstract submitted, and its decision shall govern, except that either party to the dispute may appeal to the Car Hire Rules Arbitration Committee of the Association of American Railroads.

APPENDIX B

**Rules Governing Settlement For the Use of Foreign Railroad-Owned Freight Cars by Short Line Railroads,
Which Are Less Than 100 Miles in Length, Located Within the United States**

RULE 1

The Code of Car Hire Rules shall apply, except as hereinafter modified or amended.

RULE 2

(a) Short lines having but one connecting railroad will settle with that road for the use of foreign freight equipment.

(b) Short lines having connection with more than one railroad will settle with the car owner for the use of foreign freight equipment except when authorized to settle with connecting railroads under the provisions of Rule 6.

RULE 3

Settlements under Rule 2 shall be made promptly after the close of each calendar month and shall include all car hire accruing during that month.

RULE 4

The connecting carrier with which settlements are made under Rule 2 shall report all car hire accruing on such cars to the car owner, in accordance with the Code of Car Hire Rules.

RULE 5

Junction reports prescribed by Car Hire Rule 10 need not be made for cars subject to Rule 2 (a).

RULE 6

A short line which is subject to Appendix B of the Code of Car Hire Rules may appeal to the Car Service Division for partial relief from its car hire costs providing such costs are

considered excessive compared to remuneration received for service rendered, and also providing that its efficiency of operation, as measured by the usual standards, is satisfactory. The Car Service Division may, upon presentation by a short line of data supporting claims for relief and following an analysis of conditions on such short line, authorize and arrange such car hire relief, and in such manner and to such extent, as it may deem proper, subject to the approval of the General Committee of the Operating-Transportation Division. Any arrangements for car hire relief must date from the period for which such plans are made, and not retroactively.

A short line having connection with more than one railroad and which ordinarily (a) returns railroad equipment to the road from which received or (b) delivers it to or loads it via the home road, may, subject to the approval of the General Committee, Operating-Transportation Division, be given authority to settle for the use of foreign freight equipment with its connecting roads by the Car Service Division. When such authority is given, owners will be notified accordingly.

Departures from Rule 1 of the Car Hire Code, which requires the payment of the car hire rates for every calendar day, shall only be made on recommendation of the Car Service Division to the General Committee of the Operating-Transportation Division.

Traffic Department
Atchison, Topeka and Santa Fe
Railway Company
80 East Jackson Blvd.
Chicago, IL 60604
312-427-4900

Traffic Department
Boston and Maine Corporation
150 Causeway Street
Boston, MA 02114
617-667-8100

Marketing Department
Burlington Northern
Burlington Northern Building
176 East 5th Street
St. Paul, MN 55101
612-298-2121

Merchandise Traffic Department
Chessie System*
The Terminal Tower
Cleveland, OH 44101
216-623-2200
*Consists of Chesapeake & Ohio Ry.
Baltimore & Ohio RR
Western Maryland Ry.

Sales and Marketing Department
Chicago and North Western
Transportation Company
400 West Madison Street
Chicago, IL 60606
312-454-6000

Traffic Department
Chicago, Milwaukee, St. Paul,
& Pacific
(The Milwaukee Road)
Union Station
516 West Jackson Blvd.
Chicago, IL 60606
312-236-7600

Traffic Department
Chicago, Rock Island & Pacific
Railroad Company
139 West Van Buren Street
Chicago, IL 60605
312-435-7300

Marketing Department
Consolidated Rail Corporation
Transportation Center
6 Penn Center Plaza
Philadelphia, PA 19104
215-594-1000

Traffic Department
Delaware & Hudson Railway
Company
Delaware & Hudson Building
Albany, NY 12207
518-471-5400

Traffic Department
The Denver & Rio Grande
Western Railroad
Park Central Plaza
1515 Arapahoe Street
P. O. Box 5482
Denver, CO 80217
303-222-5533

Freight Traffic Department
The Family Lines**
500 Water Street
Jacksonville, FL 32202
904-353-2011
**Includes Seaboard Coast Line RR
Louisville & Nashville RR
Clinchfield RR Company
and several smaller
lines

Marketing Department
Illinois Central Gulf Railroad
233 North Michigan Avenue
Chicago, IL 60601
312-565-1600

Freight Traffic Department
Kansas City Southern Lines
114 West 11th
Kansas City, MO 64105
816-842-0077

Traffic and Marketing Department
Maine Central Railroad Company
Portland, ME 04102
207-773-4711

Sales and Services Department
Missouri-Kansas-Texas Railroad
Company
Katy Building
Dallas, TX 75202
214-651-6706

Traffic Department
Missouri Pacific Railroad Company
The Texas and Pacific Railway Co.
Missouri Pacific Building
210 North 13th Street
St. Louis, MO 63103
314-622-0123

Merchandise Department
Norfolk & Western Railway Co.
Roanoke, VA 24042
703-981-4000

Marketing Department
St. Louis-San Francisco Railway Co.
Frisco Building
906 Olive Street
St. Louis, MO 63101
314-241-7800

Traffic Department
Soo Line Railroad Company
Soo Line Building
Minneapolis, MN 55440
612-332-1261

Traffic Department
Southern Pacific Lines, including
St. Louis Southwestern (Cotton
Belt)
One Market Street
San Francisco, CA 94105
415-362-1212

Marketing and Planning Department
Southern Railway System
920 15th Street, Northwest
P. O. Box 1808
Washington, DC 20013
202-628-4460

Department of Traffic
Union Pacific Railroad
Union Pacific Building
1416 Dodge Street
Omaha, NE 68179
402-281-5822

Marketing Department
The Western Pacific Railroad Company
526 Mission Street
San Francisco, CA 94105
415-982-2100

APPENDIX 10

GUIDE TO FRA TRACK STANDARDS

Source: Modern Railroads - Rail Transit, Vol. 28,
No. 3 (March 1973), Chicago, Illinois:
Cahners Publishing Company, Inc.

Handy Guide to FRA Track Standards

Reference Guide to

The FEDERAL TRACK SAFETY STANDARDS

United States railroads are now subject to the track safety standards developed under the Federal Railroad Safety Act of 1970.

The initial standards were promulgated by the Federal Railroad Administrator on October 15, 1971; most of them became effective October 16, 1972.

In September, 1972, FRA issued a notice of proposed rule making to amend the initial standards. After subsequent written comments and a public hearing, a number of amendments were adopted.

The reference chart on the following four pages incorporates these amendments to the initial standards, as issued by FRA on December 22, 1972.

NOTE: This Guide to the Federal Track Safety Standards has been designed to be as easy to use and as complete as we could make it.

The dimensional and other numerical data, tabulated in various sections of the Standards by classes of track, have been brought together in one master table. Another table tabulates the remedial actions required for the different types of rail defects. Portions of the Standards not having tabulated data are found in the accompanying text.

Although this Guide presents nearly all the material in the Standards, space limitations have made it necessary to omit several explanatory sections, and to condense and paraphrase the wording of some others. Also omitted are the definitions of rail defects and the definitions of guard check gage and guard face gage.

For the complete text of the Standards, see these references in the Federal Register: 36 FR 20336; 38 FR 873; 38 FR 1508.

Subpart A—GENERAL

213.1 Scope of Part: This Part (i.e. the Standards) prescribes initial minimum safety requirements for railroad track that is part of the general railroad system of transportation. The requirements apply to specific track conditions existing in isolation. Therefore, a combination of track conditions, none of which individually amounts to a deviation from the requirements, may require remedial action to provide for safe operations over that track.

213.3 Application: (a) The Standards apply to all standard-gage track in the general railroad system; (b) they do not apply to track (1) inside an installation not part of the general railroad system, or (2) used exclusively for rapid transit, commuter or other short-haul passenger service in a metropolitan or suburban area.

213.5 Responsibility of track owners: (a) Track owner who knows or has notice his track does not comply with requirements of the Standards shall (1) bring track into compliance or (2) halt operations over that track. (b) If track owner assigns responsibility for track to another person (by lease or otherwise), any party to the assignment may petition FRA to recognize the responsibility of the assignee for purposes of compliance with the Standards. (c) If Administrator is satisfied that assignee is competent to carry out the duties and responsibilities of track owner he may grant the petition subject to any conditions he deems necessary...

213.7 Qualified persons: (a) Track owner must designate qualified persons to supervise restorations or renewals under traffic. Each designated person must have (1) at least one year of experience in supervision of track maintenance, or a combination of experience and training from a college-level program related to track maintenance; (2) demonstrated to track owner that he knows and understands the requirements of the Standards, can detect variations from the requirements and can prescribe appropriate remedial measures; (3) written authorization from owner to prescribe remedial actions to correct or safely compensate for deviations from the Standards. (b) Track owner must also designate qualified persons to inspect track. Qualifications similar to those in (a) except that inspector prescribes remedial actions pending review by a designated supervisory person. (c) Track owner must maintain written records of (1) each designation in effect; (2) the basis for each designation and (3) track inspections made by each designated person as required by 213.241. Records must be kept available for inspection by the Administrator.

213.9 Classes of track; operating speed limits: (a) Maximum allowable operating speeds—see table. (b) If a segment of track does not meet all requirements for its intended class, it is reclassified to the next lowest class for which it does meet the requirements. However, if it does not at least meet requirements for Class 1 track, no operations may be conducted over it except under continuous supervision of a designated supervisory person.

213.11 Restoration or renewals under traffic: If, while undergoing restoration or renewal under traffic, track does not meet all requirements of the Standards, the work and operations on the track must be under continuous supervision of a person designated under 213.7.

213.13 Measuring track not under load: When unloaded track is measured to determine compliance with the Standards, any rail movement that occurs under load must be added to the measurement of the unloaded track.

213.15 Civil penalty: (a) Any owner of track to which Standards apply, or any person responsible under 213.5(c), who violates any requirement of the Standards is subject to civil penalty of at least \$250 but not more than \$2500. (b) Each day a violation persists shall be treated as a separate offense.

213.17 Exemptions: (a) Any track owner may petition FRA for exemption from any or all requirements of the Standards, (b) as prescribed in 211.11 of Title 49. (c) If Administrator finds exemption in the public interest and consistent with railroad safety he may grant exemption subject to any conditions he deems necessary...

Subpart B—ROADBED

213.33 Drainage: Drains and other water-carrying facilities under or adjacent to the roadbed must be maintained and kept free of obstruction, to accommodate the expected water flow.

213.37 Vegetation: Vegetation on railroad property on or immediately adjacent to the roadbed must be controlled so that it does not (a) become a fire hazard to track-carrying structures, (b) obstruct visibility of signs and signals, (c) interfere with employees performing trackside duties, (d) prevent proper functioning of signal and communication lines, (e) prevent employees from inspecting moving equipment from their normal duty stations.

Subpart C—TRACK GEOMETRY (see also table)

213.53 Gage: (a) is measured between heads of rails at right angles to rails in a plane $\frac{3}{8}$ in. below top of rail head. (b) Gage limitations—see table.

213.55 Alinement: Allowable deviations—see table.

213.57 Curves; elevation and speed limits: (a) Generally, outside rail of a curve may not be lower than the inside rail or have more than 6 in. elevation. (b) Maximum allowable operating speed for each curve determined by this formula:

$$\text{Maximum allowable op. speed (mph)} = \sqrt{\frac{E_a + 3}{0.0007d}}$$

E_a = actual elevation of outside rail (in.); d = curvature (degrees).

213.59 Elevation; runoff: (a) Full elevation must be provided throughout an elevated curve unless physical conditions do not permit. If runoff occurs on curve, actual minimum elevation must be used to compute allowable speed. (b) Runoff must be at uniform rate... and extend at least full length of spirals. If spiral cannot be long enough to permit minimum runoff length, part of runoff may be on tangent track.

213.61 Data on classes 4 -6 curves: Owner of track with curves in classes 4 thru 6 must maintain record showing for each curve (1) location, (2) degree of curvature, (3) designated elevation, (4) designated length of elevation runoff, (5) maximum allowable operating speed.

213.63 Track surface: Allowable limits—see table.

Subpart D—TRACK STRUCTURE (see also table)

213.103 Ballast, general: Unless otherwise structurally supported, all track must be supported by material that will transmit the load of track and trains to the subgrade; restrain track laterally, vertically and longitudinally under dynamic loads and thermal stresses; provide adequate drainage, maintain proper cross-level, surface, alinement.

213.105 Ballast, disturbed track: Disturbed track must be examined by a person designated under 213.7 and if he considers it necessary operating speed reduced to what he considers safe speed.

213.109 Cross ties: (a) Ties may be of any material to which rails can be securely fastened and which can hold rails to gage (as prescribed in 213.53(b) and distribute load from rails to ballast. (b) A timber tie is considered defective when (1) broken through; (2) split or otherwise impaired so it will not hold spikes or will allow ballast to work through; (3) deteriorated so tie plate or base of rail can move laterally more than $\frac{1}{2}$ in. relative to tie; (4) plate cut more than 40% of its thickness; (5) not spiked as required by 213.127. (c) (d) Minimum non-defective timber ties per 39 ft. of track and minimum non-defective ties under rail joints—see table. (e) Crossties may not be interlaced to take place of switch ties except for emergency or for temporary installation...

213.113 Defective rails—see table.

213.115 Rail end mismatch—see table

213.117 Rail end batter: (a)... is depth of depression at $\frac{1}{2}$ in. from rail end. Measure with 18-in. straightedge on rail tread; without bridging joint measure distance between bottom of straightedge and top of rail at $\frac{1}{2}$ in. from rail end. (b) Allowable limits—see table.

213.119 Continuous welded rail: (a)... Must be installed at or adjusted for rail temperature range that should not result in forces that

Refer to	Subject	Class of track	1	2	3	4	5	6
213.9(a)	Operating Speed Limits	Miles per hour { Freight Passenger	10 15	25 30	40 60	60 80	80 90	110 110
213.53(b)	Gage	At least 4' 8" { Tangents but not more than { Curves	4' 9 3/4" 4' 9 3/4"	4' 9 1/2" 4' 9 3/4"	4' 9 1/2" 4' 9 3/4"	4' 9 1/4" 4' 9 1/2"	4' 9" 4' 9 1/2"	4' 8 3/4" 4' 9"
213.55	Alinement	Tangent—Deviation of mid-offset of 62' line, not more than	5"	3"	1 3/4"	1 1/2"	3/4"	1/2"
		Curve—Deviation of mid-ordinate of 62' chord, not more than	5"	3"	1 3/4"	1 1/2"	5/8"	3/8"
213.63	Track Surface	Runoff in any 31' of rail at end of a raise, not more than	3 1/2"	3"	2"	1 1/2"	1"	1/2"
		Deviation from uniform profile, either rail, mid. ord. of 62' chord, not more than	3"	2 3/4"	2 1/4"	2"	1 1/4"	1/2"
		Deviation from designated elev. on spirals, not more than	1 3/4"	1 1/2"	1 1/4"	1"	3/4"	1/2"
		Variation in cross level on spirals in any 31', not more than	2"	1 3/4"	1 1/4"	1"	3/4"	1/2"
		Deviation from 0 cross-level at any pt. on tangent or from designated elev. on curves between spirals, not more than	3"	2"	1 3/4"	1 1/4"	1"	1/2"
		Difference in cross-level bet. any 2 pts. less than 62' apart on tans. & curves bet. spirals, not more than	3"	2"	1 3/4"	1 1/4"	1"	5/8"
213.109(c)	Crossties	Minimum no. non-defective timber ties per 39 ft. of track	5	8	8	12	12	14
		Maximum distance between non-defective ties, center-to-center	100"	70"	70"	48"	48"	48"
213.109(d)	Crossties	Minimum No. of non-defective ties under a rail joint	1	1	1	2	2	2
		Required position of non-defective ties { Supported joint Suspended joint	X, Y or Z X or Y	Y X or Y	Y X or Y	X & Y or Y & Z X & Y	X & Y or Y & Z X & Y	X & Y or Y & Z X & Y

213.115	Rail End Mismatch	Not more than { Trend of rail ends Gage side of rail ends	1/4" 1/4"	1/4" 3/16"	3/16" 3/16"	1/8" 1/8"	1/8" 1/8"	1/8" 1/8"
213.117(b)	Rail End Batter	Not more than	1/2"	3/8"	3/8"	1/4"	1/8"	1/8"
213.127(a)	Spikes	Total number per rail per tie incl. plate-holding spikes, at least:						
		Tangent and curves not more than 2°	2	2	2	2	2	2
		Curves, more than 2° not more than 4°	2	2	2	2	3	—
		Curves, more than 4° not more than 6°	2	2	2	3	—	—
		Curves, more than 6°	2	3	3	—	—	—
213.143	Frog guard rails & guard faces; gage	Guard check gage, not less than	4' 6 1/8"	4' 6 1/4"	4' 6 3/8"	4' 6 3/8"	4' 6 1/2"	4' 6 1/2"
		Guard face gage, not more than	4' 5 1/4"	4' 5 1/8"	4' 5 1/8"	4' 5 1/8"	4' 5 1/8"	4' 5"
213.233(c)	Track Inspection Schedule	cd = calendar day interval between inspections, at least	Main track & sidings: Weekly (3 cd) or Before use, if used less than weekly, or Twice weekly, if has psgr trains or more than 10 MGT last cal. year Other than main track and sidings: Monthly (20 cd)			All track Twice weekly (1 cd)		

213.113(a) DEFECTIVE RAILS:

When a rail is found to have any of the defects listed below, operation over the defective rail is not permitted until (1) the rail is replaced; or (2) the remedial action prescribed in the table is initiated:

Defect	Percent of rail head cross-sec. area weakened by defect		If rail not replaced, take this action:
	Less Than	But not less than	
Transverse fissure	20		B
Compound fissure	100	20 100	B A
Detail fracture	20		C
Engine burn fracture	100	20	D
Defective weld		100	A, or E and H
Length of defect (in.)			
	More Than	But not more than	
Horizontal split head	0	2	H and F
Vertical split head	2 4	4	I and G B
	(Break out in rail head)		A
Split web	0	1/2	H and F
Piped rail	1/2	3	I and G
Head web separation	3		B
	(Break out in rail head)		A
Bolt hole crack	0	1/2	H and F
	1/2	1 1/2	I and G
	1 1/2		B
	(Break out in rail head)		A
Broken base	0	6	E and I
	6		(Replace rail)
Ordinary break			A or E
Damaged rail			C

213.113(b) OTHER RAIL CONDITIONS:

If a rail in classes 3 thru 6 track or class 2 track carrying passenger trains evidences any of conditions listed below, the prescribed remedial action must be taken:
If person designated under 213.7 determines that condition:

Condition	Requires rail be replaced	Does not require rail be replaced
Shelly spots Head checks Engine burn (but not fracture) Mill defect	Limit speed to 20 mph and schedule rail replacement.	Inspect rail for internal defects at intervals of not more than 12 mo.
Flaking Slivered Corrugated Corroded	Limit speed to 20 mph and schedule rail replacement.	Inspect rail at intervals of not more than every 6 mo.

Notes Remedial Actions:

- A Assign person designated under 213.7 to visually supervise each operation over defective rail.
- B Limit operating speed to 10 mph over defective rail.
- C Apply joint bars bolted only through outermost holes to defect within 20 days after it is determined to continue the track in use. On classes 3 thru 6 track, limit operating speed over defective rail to 30 mph until bars applied; thereafter, limit speed to 50 mph or maximum allowable speed under 213.9 for class of track concerned, whichever is lower.
- D Apply joint bars bolted only through outermost holes to defect within 10 days after it is determined to continue track in use. Limit operating speed over defective rail to 10 mph until bars are applied; thereafter, limit speed to 50 mph or maximum allowable speed under 213.9 for the class of track concerned, whichever is lower.
- E Apply joint bars to defect in accordance with 213.121 (d) and (e).
- F Inspect rail 90 days after it is determined to continue track in use.
- G Inspect rail 30 days after it is determined to continue track in use.
- H Limit operating speed over defective rail to 50 mph or maximum allowable speed under 213.9 for class of track concerned, whichever is lower.
- I Limit operating speed over defective rail to 30 mph or maximum allowable speed under 213.9 for class of track concerned, whichever is lower.

will produce lateral displacement of the track or pull-aparts. (b) After installation it should not be disturbed at rail temperatures higher than than installation or adjusted installation temperature.

213.121 Rail joints: (a) Each joint, insulated or compromise joint must be of proper design and dimensions for the rail to which applied, (b) on classes 3 thru 6 track, joint bar must be replaced if cracked, broken or allows vertical movement of either rail when bolts are tight; (c) joint bar must be replaced if cracked or broken between middle two bolt holes; (d) on conventional jointed track, each rail must be bolted with at least two bolts in each joint on classes 2 thru 6 track; one bolt on class 1 track; (e) on CWR track, each rail must be bolted with at least two bolts at each joint; (f) bolts must be tightened to allow joint to support abutting rail ends firmly and permit longitudinal movement of rail in joint to compensate for temperature contraction/expansion. Out-of-face no-slip joint-to-rail construction is considered to be CWR track and must meet all CWR requirements. (g) No rail or joint bar with torch-cut or burned bolt hole may be used in classes 3 thru 6 track.

213.123 Tie plates: (a) Classes 3 thru 6 track with timber ties must have tie plates under running rails on at least 8 of any 10 consecutive ties. (b) No part of a tie plate shoulder may be under the base of rail.

213.125 Anchoring: Longitudinal rail movement must be effectively controlled. Anchors that bear on the sides of ties must be on same side of tie on both rails.

213.127 Track spikes: (a) Track with timber ties and cut spikes must have rails spiked to ties with at least one line-holding spike on gage side and one line-holding spike on field side. (see table). (b) Tie not meeting requirements of (a) is defective for purposes of 213.109(b).

213.129 Track shims: (a) Shims may be used when track does not meet geometric standards of Subpart B and weather or other natural conditions prevent working ballast; but they must be removed and track resurfaced as soon as conditions permit. (b) Shims must be at least size of tie plate, inserted directly on top of tie, beneath rail and tie plate and spiked directly to tie with spikes that penetrate the tie at least 4 in. (c) Rail shimmed more than 1 1/2 in. must be securely braced on at least every third tie for full length of shimming. (d) When shimming rail more than 2 in., combination of shims and 2-in. or 4-in. planks must be used with shims on top of planks.

213.131 Planks used in shimming: (a) They must be at least as wide as tie plates, but no less than 5 1/2 in. wide, whenever possible should extend full length of tie. If shorter than tie, plank must be at least 3 ft. long with outer end flush with end of tie. (b) Additional shims may be placed between ties and planks under rails to compensate for uneven ties or uneven heaving of the two rails. (c) Planks must be nailed to ties with at least four 8-in wire spikes. Before spiking rails or shim braces, planks must be bored with 5/8 in. holes.

213.133 Turnouts, track crossings, general: (a) . . . Fastenings must be intact and maintained to keep components securely in place; switches, frogs, guard rails kept free of obstructions. (b) Classes 4 thru 6 track must have rail anchors through and on each side of track crossings and turnouts, to restrain rail movement affecting position of switch points and frogs. (c) Each flangeway at track crossings, turnouts must be at least 1 1/2 in. wide.

213.135 Switches: (a) Stock rail must be securely seated in switch plates, but . . . avoid canting rail by over-tightening rail braces. (b) Each switch point must fit its stock rail properly with switch stand in either closed position . . . Fit of point to stock rail must not be adversely affected by lateral or vertical movement of stock rail in switch plates or of switch plate on tie. (c) Switch must be maintained so outer edge of wheel tread cannot contact gage side of stock rail. (d) Heel of each switch must be secure; bolts in each heel must be tight. (e) Switch stand and connecting rod must be securely fastened, operate without excess lost motion. (f) Throw lever must not be operable with lock or keeper in place. (g) Switch position indicator must be clearly visible at all times. (h) Unusually chipped or worn points must be repaired or replaced; metal flow must be removed to ensure proper closure.

213.137 Frogs: (a) Flangeway depth measured from a plane across wheel bearing area of frog: Class 1 track, not less than 1 3/4 in.; classes 2 thru 6 track, not less than 1 1/2 in. (b) If frog point is chipped, broken or worn more than 3/8 in. down and 6 in. back, or (c) if tread portion of frog casting is worn down more than 1/8 in. below original contour, operating speed over frog may not exceed 10 mph.

213.139 Spring rail frogs: (a) Outer edge of wheel tread may not contact gage side of spring wing rail. (b) Wing rail toe must be solidly tamped, fully and tightly bolted. (c) Bolt hole defect or head-web separation—replace frog. (d) Spring tension must be sufficient to hold wing rail against point rail. (e) Clearance between hold-down housing and horn may not exceed 1/4 in.

213.141 Self-guarded frogs: (a) Raised guard on self-guarded frog may not be worn more than 1/4 in. (b) If repairs are made to self-guarded frog without removing it from service, guarding face must be restored before rebuilding point.

213.143 Frog guard rails and guard faces—see table.
Subpart E—TRACK APPLIANCES, RELATED DEVICES

213.205 Derails: (a) Each derail must be clearly visible; when in locked position must not be operable without removing lock. (b) When operated & latched, remote controlled derail lever must actuate derail.

213.207 Switch heaters: Operation of switch heater must not interfere with proper operation of switch or otherwise jeopardize safety of railroad equipment.

Subpart F—INSPECTION

213.233 Track inspections: (a) All track must be inspected on schedule prescribed in (c) below (see table) by a person designated under 213.7. (b) Inspection must be made on foot or by riding over track in a vehicle at speed permitting visual inspection of track structure for compliance with the Standards; vehicle speed may not exceed 5 mph over track crossings, highway crossings or switches. Mechanical or electrical devices approved by FRA may be used to supplement visual inspection. (c) Track inspection schedule—see table. (d) Person making the inspection who finds a deviation from requirements of the Standards must immediately initiate remedial action.

213.235 Switch and track crossing inspection: (a) Each switch and track crossing must be inspected on foot at least monthly, except that (b) on track used less than once a month, each switch and track crossing must be inspected on foot before it is used.

213.237 Inspection of rail: (a) Besides inspections required under 213.233, a continuous search for internal defects must be made at least once a year on all jointed and welded rails in classes 4 thru 6 track, also class 3 track carrying passenger trains. However, if before or within six months after installation, new rail is inductively or ultrasonically inspected over full length and all defects removed, next continuous search for internal defects need not be made until three years after that inspection. (b) Inspection equipment must be able to detect defects in area of rails enclosed by joint bars. (c) Each defective rail must be marked with highly visible marking on both sides of web and base.

213.239 Special Inspections: As soon as possible after fire, flood, severe storm or other occurrence that might have damaged track, special inspection must be made of track involved.

213.241 Inspection records: (a) Track owner shall keep record of each inspection required on his track. (b) Records of inspections made under 213.233 and 213.235 shall be prepared the day inspection is made, signed by person making the inspection. Records must specify track inspected, date of inspection, location and nature of any deviation from requirements of Standards and remedial action taken by person making inspection. Each record must be retained at division headquarters for at least one year. (c) Rail inspection record must specify date of inspection, location, nature of any internal defects found, remedial action taken and date thereof. Owner shall retain rail inspection record for at least two years after inspection and one year after remedial action is taken. (d) Owner shall make inspection records available for inspection and copying by FRA.

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