

**§ 256.15 Disbursement of financial assistance.**

(a) *Grant agreement.* After receipt, review, and approval of an application, the Administrator will enter into a grant agreement with an applicant for the Federal share of the total allowable project costs. The terms and conditions of payment of the Federal share shall be set forth in the grant agreement.

(b) *Record retention.* Each recipient of financial assistance under this part shall keep such records as the Administrator 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 or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(c) *Audit and examination.* Until the expiration of three years after the completion of the project or undertaking referred to in paragraph (b) of this section, the Administrator 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 such receipts which, in the opinion of the Administrator or the Comptroller General, may be related or pertinent to such financial assistance.

[40 FR 29080, July 10, 1975, as amended at 43 FR 21890, May 22, 1978]

**APPENDIX A TO PART 256—CERTIFICATE**

The following is the form of the certificate to be executed by each person signing a pre-application or application:

\_\_\_\_\_ (Name of Person) certifies that he is the Chief Executive Officer of \_\_\_\_\_ (Name of Agency or Organization); that he is authorized to sign and file with the Federal Railroad Administrator this (pre-application or application); that he has carefully examined all of the statements contained in the (pre-application or application) relating to \_\_\_\_\_; that he has knowledge of the matters set forth therein and that all statements made and matters set forth therein are true and correct to the

best of his knowledge, information and belief.

[43 FR 21890, May 22, 1978]

**PART 260—REGULATIONS GOVERNING SECTION 511 OF THE RAILROAD REVITALIZATION AND REGULATORY REFORM ACT OF 1976, AS AMENDED**

**Subpart A—Procedures for Application for Commitment to Guarantee or Guarantee of Obligations**

- Sec.
- 260.1 Applicability.
- 260.3 Definitions.
- 260.5 Eligibility.
- 260.7 Form and content of application.
- 260.9 Required exhibits.
- 260.11 Preapplication and application procedure.
- 260.13 Information requests.
- 260.15 Waivers and modifications.

**APPENDIX TO SUBPART A—ENVIRONMENTAL ASSESSMENTS**

**Subpart B—Standards for Maintenance of Facilities by Recipients of Obligation Guarantees**

- 260.17 Applicability.
- 260.19 Definitions.
- 260.21 Standards.
- 260.23 Inspection and reporting.
- 260.25 Waiver.
- 260.27 Impact on other laws.
- 260.29 Penalties.

**Subpart C—Procedures for Computing the Internal Rate of Return on Projects**

- 260.31 Applicability.
- 260.33 Definitions.
- 260.35 Procedures to be followed and format to be utilized.

**APPENDIX A TO PART 260—SELECTED CASH FLOW IMPACTS**

**APPENDIX B TO PART 260—FORMS TO BE USED IN COMPUTING IRR**

- FORM I—ANALYSIS OF CAPITALIZED INVESTMENT
- FORM II—ANALYSIS OF SALE OR RETIREMENT OF ASSETS
- FORM III—ANALYSIS OF EXPENSES AND CONTRIBUTION TO PROFIT
- FORM IV—CONSOLIDATION OF CASH FLOWS
- FORM V—COMPUTATION OF IRR

**AUTHORITY:** Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. 94-210, 90 Stat. 76, as amended by the Rail Transportation Improvement Act, Pub. L. 94-555, 90 Stat. 2625; the Department of Transportation Act, 49 U.S.C. 1651 et seq.,

regulations of the Office of the Secretary of Transportation, 49 CFR 1.49(u).

SOURCE: 43 FR 14870, Apr. 7, 1978, unless otherwise noted.

### Subpart A—Procedures for Application for Commitment to Guarantee or Guarantee of Obligations

#### § 260.1 Applicability.

This subpart prescribes the procedures governing applications for a commitment to guarantee or a guarantee of the payment of the principal balance of, and any interest on, an obligation of an applicant under section 511 of the Railroad Revitalization and Regulatory Reform Act of 1976, as amended ("Act"). Applications for a commitment to guarantee or a guarantee of obligations of the Consolidated Rail Corporation for electrification of high-density mainline routes must be filed in accordance with these procedures, as provided in section 211(i) of the Regional Rail Reorganization Act of 1973, as amended (45 U.S.C. 721(i)). These procedures also govern applications for a commitment to guarantee or guarantee of obligations incurred for the purpose set forth in section 517 of the Act, improvement of intercity rail passenger service on lines of the applicant located outside the Northeast Corridor, being the properties acquired by the National Railroad Passenger Corporation pursuant to title VII of the Act and described in section 701(a)(4) of the Act.

#### § 260.3 Definitions.

As used in this part—

(a) *Act* means the Railroad Revitalization and Regulatory Reform Act of 1976 (Pub. L. 94-210, February 5, 1976), as amended.

(b) *Administrator* means the Federal Railroad Administrator, or his delegate.

(c) *Applicant* means any railroad, or other person (including a governmental entity) that submits an application to the Administrator for the guarantee of an obligation under which it is an obligor or for a commitment to guarantee such an obligation.

(d) *Commission* means the Interstate Commerce Commission.

(e) *Equipment* means any type of new or rebuilt standard gauge locomotive, caboose, or general service railroad freight car the use of which is not limited to any specialized purpose by particular equipment, design, or other features, or any other type of car designated by the Administrator upon a written finding that such designation is consistent with the purposes of the Act. General service railroad freight car includes a boxcar, gondola, open-top or covered hopper car, and flatcar.

(f) *Facilities* means—

(1) Track, roadbed, and related structures, including rail, ties, ballast, other track materials, grading, tunnels, bridges, trestles, culverts, elevated structures, stations, office buildings used for operating purposes only, repair shops, enginehouses, and public improvements used or usable for rail service operations;

(2) Communications and power transmission systems, including electronic, microwave, wireless, communication, and automatic data processing systems, electrical transmission systems, powerplants, power transmission systems, powerplant machinery and equipment, structures, and facilities for the transmission of electricity for use by railroads;

(3) Signals, including signals and interlockers;

(4) Terminal or yard facilities, including trailer-on-flat-car and container-on-flatcar terminals, express or railroad terminal and switching facilities, and services to express companies and railroads and their shippers, including ferries, tugs, carfloats, and related shoreside facilities designed for the transportation of equipment by water; or

(5) Shop or repair facilities or any other property used or capable of being used in rail freight transportation services or in connection with such services or for originating, terminating, improving, and expediting the movement of equipment.

(g) *FRA* means Federal Railroad Administration.

(h) *Guarantee* means guarantee or commitment to guarantee unless the

context in which it is used indicates otherwise.

(i) *Including* means including but not limited to.

(j) *Holder* means the obligee or creditor under an obligation, except that when a bank or trust company is acting as agent or trustee for such an obligee or creditor pursuant to an agreement to which the obligor is a part, the term refers to such bank or trust company.

(k) *Obligation* means a bond, note, conditional sale agreement, equipment trust certificate, security agreement, or other obligation issued or granted to finance or refinance equipment or facilities acquisition, construction, rehabilitation or improvement.

(l) *Obligor* means the debtor under an obligation, including the original obligor and any successor or assignee of such obligor who is approved by the Administrator.

(m) *Project* means the use of the proceeds of the obligation for which a guarantee or guarantee commitment is sought.

(n) *Railroad* means a common carrier by railroad or express as defined in section 1(3) of Part I of the Interstate Commerce Act (49 U.S.C. 1(3)), including the National Railroad Passenger Corporation and the Alaska Railroad.

(o) *Trustee* means the trustee, or trustees if more than one trustee has been appointed, of an applicant in bankruptcy.

**§ 260.5 Eligibility.**

Under section 511 the Administrator may guarantee and make commitments to guarantee the payment of the principal balance of, and any interest on, an obligation of any applicant prior to, on, or after the date of execution or the date of disbursement of such obligation, if the proceeds of such obligation shall be or have been used to acquire or to rehabilitate and improve facilities or equipment, or to develop or establish new railroad facilities.

**§ 260.7 Form and content of application.**

(a) Each application shall include, in the order indicated and identified by applicable section numbers and letters

corresponding to those used in this part, the following information:

(1) Full and correct name and principal business address of the applicant;

(2) Date of applicant's incorporation, or organization if not a corporation, and name of the government, state or territory under the laws of which it was incorporated or organized. If applicant is a trustee then, in addition, the name and address of the reorganization court under the direction of which applicant is acting, and the docket number of the proceeding. If applicant is a partnership, association, or other form of organization other than a corporation, a full description of the organization should be furnished;

(3) Name, title, and address of the person to whom correspondence regarding the application should be addressed;

(4) Certified copy of proposed or executed obligation agreement, including and related agreements of other documents, and detailed description of the obligation, and of the series or issue of which the obligation is a part, including—

(i) Total amount of the obligation;

(ii) Detailed description of the project and its purpose or purposes, including—

(A) A description of all facilities or equipment and the physical condition of such facilities or equipment included in or directly affected by the proposed project and a description of the project;

(B) Each part or sub-part into which the project may reasonably be divided, the priority and schedule of expenditure for each part or sub-part:

(C) Estimated timing of the expenditure of the proceeds of the obligation; and

(D) Statement of whether the project involves another railroad or other participant, through joint execution, coordination, or otherwise; if so, description of the relative participation of applicant and such other railroad or participant, including statement or financing arrangements of each participant, portion of the work to be performed by each participant, and contemplated level of usage of the equipment or facility of each participant when the work is completed, along

with a statement by a responsible officer or official of the other railroad or participant that the information provided reflects their agreement on these matters;

(iii) Effective date;

(iv) Schedule for repayment of principal;

(v) Description of the security to be offered the Administrator in connection with any guarantee, applicant's opinion of the value of this security and the basis for such opinion; in the case of leased equipment to be rehabilitated or improved with the proceeds of the obligation proposed to be guaranteed, applicant shall state, in addition to the above, whether the lease provides for, or the lessor will permit, encumbrance of the leasehold or subordination of the lessor's interest in the equipment to the Administrator.

(vi) Where the obligation for which a guarantee is sought is outstanding, actual effective rate of interest; or where the applicant has discussed with a potential holder the terms of an obligation to be issued, the proposed effective rate of interest;

(5) Statement, in summary form, showing financial obligations to or claims against the United States or obligations for which the United States is guarantor, if any, by applicant or any affiliated corporate entity of the applicant or the applicant's parent as of the date of the application, including:

(i) Status of any claims under litigation; and

(ii) Any other debits or credits existing between the applicant and the United States, showing the department or agency involved in such loans, claims and other debts;

(6) An analysis that includes:

(i) Statement, together with supporting evidence including copies of all market analyses and studies that have been performed to determine present and future demand for rail services, that the financing is justified by present and future demand for rail services, will meet existing needs for such services, and will provide shippers with improved service;

(ii) Description of the impact of the financing upon the projected traffic to be originated, terminated, or carried by the obligor for at least the five

years immediately following completion of the project; and

(iii) Description of any other benefit which would accrue to the applicant from the proceeds of the obligation;

(7) Statement, together with supporting evidence, that the facilities or equipment being acquired, rehabilitated or improved will be efficiently and economically utilized, including:

(i) A detailed statement setting forth the estimated internal rate of return on the project, computed in accordance with the provisions of subpart C of this part. This statement shall follow the procedures and follow the format required by subpart C. Relevant material presented elsewhere in the application need not be repeated in this statement, but must be explicitly referenced. If the project can be divided into parts such that each part:

(A) Accounts for a significant portion of the total investment for which Federal assistance is sought; and

(B) Produces approximately the same cash flow impacts regardless of whether the remainder of the project is undertaken; then the applicant must submit a separate internal rate of return computation, with the supporting documentation described in subpart C of this part, for each part of the project. In that case, all references to the term "project" in subpart C of this part shall be deemed to refer to the part of the project for which the rate of return is being computed;

(ii) Explanation of the manner in which the project will increase the economical and efficient utilization of equipment and facilities; and

(iii) Documentation of any other improvements in service as a result of the project, including service reliability between origin and destination point pairs and reduction in time from load to load car cycle by car type;

(iv) A description of the project's effect on national energy consumption (over the life of the project and in light of the information provided in response to §260.6) by the applicant and other parties (as applicable) with particular emphasis on increases and decreases in national use of petroleum, natural gas, and coal.

(8) Statement, together with supporting evidence, that the transaction will

improve the ability of any affected railroad to transport passengers or freight;

(9) Statement of applicant's maintenance program for its entire rail system and planned maintenance program for the equipment or facilities financed by the proceeds of the obligation;

(10) Certified statement that applicant will pay to the Administrator in accordance with §260.11(b)(4) an initial investigation charge and any additional investigation charges the Administrator assesses with respect to analysis and evaluation of the application, appraisal of any security offered by an applicant, and all studies and investigations that the Administrator deems necessary in order to make determinations or findings prescribed in the Act, up to a maximum of one-half of one percent of the obligation for which a guarantee is sought.

(11) With respect to each existing holder or proposed prospective holder, a statement as to:

(i) Full and correct name and principal business address;

(ii) Reference to applicable provisions of law and the charter or other governing instruments conferring authority on the holder to accept the obligation;

(iii) Brief statement of the circumstances and negotiations leading to the agreement by the holder to take the proposed obligation;

(iv) Brief statement of the nature and extent of any affiliation or business relationship between the existing or prospective holder and any of its directors, partners, or principal executive officers, on the one hand, and, on the other, the applicant and any of its directors, partners, or principal executive officers, or any person or persons whose name is required to be furnished under paragraph (a)(11)(v) of this section; and

(v) Full and complete statement of all sums to be given by the holder in connection with the proposed obligation including:

(A) Name and address of each person to whom the payment has been made or will be made and nature of any affiliation, association, or prior business relationship between any person named

in this paragraph and the holder or any of its directors, partners, or officers;

(B) Amount of the cash payment, or the nature and value of other consideration; and

(C) Any condition upon the obligation of the obligee to make such payment;

(12) Detailed assessment of impact of the project on the environment, in the general format and including the information set forth in the appendix to subpart A of this part;

(13) Statement that notice of the application, including a brief description of the project, has been posted on bulletin boards convenient to interested employees of the railroad and by sending registered mail notice to the duly authorized representatives of such employees. This requirement is not in lieu of any other requirement imposed by reason of section 516 of the Act;

(14) Any information that the applicant deems appropriate to convey a full and complete understanding of the project and its impact or to assist the Administrator in making the statutorily prescribed findings; and

(15) Any other information which the Administrator may deem necessary concerning an application filed under this part.

(b) When applicant is a trustee, the application shall provide all of the information required in paragraph (a) of this section, and in addition shall provide a full and complete statement, together with supporting evidence, demonstrating that applicant can reasonably be expected to become self-sustaining within a reasonable period of time.

[43 FR 14870, Apr. 7, 1978, as amended at 45 FR 58038, Aug. 29, 1980]

#### §260.9 Required exhibits.

There shall be filed with and made a part of each application and copy thereof the following exhibits, except that exhibits filed with the Administrator pursuant to some other statutory provision or regulation which are in the same format as the following exhibits may be incorporated in and made part of the application filed under this part by reference. While the application is pending, when actual data become available in place of the

estimated or forecasted data required in the exhibits under this part, such actual data must be reported promptly to the Administrator in the form required in the appropriate exhibit. All forecasted data required in the exhibits under this part must be based on the assumption that the project will be funded on the January 1 next following the date of the application.

(a) *Exhibit A.* Map of applicant's existing railroad with location of project indicated, if appropriate.

(b) *Exhibit B.* Statement showing to the latest available date but in any event to a date no less recent than the end of the 3d month preceding the date of filing of the application:

(1) Maximum number of locomotive units out of service during each quarter due to business conditions; maximum number of such units out of service during each quarter due to mechanical defects; and ratio of each to total ownership quarterly for each of the last 3 calendar years but not earlier than the quarter ending June 1974, and the current calendar year; and

(2) Maximum number of general service freight cars out of service during each quarter due to business conditions; maximum number of such cars out of service during each quarter due to mechanical defects; and ratio of each to total number of general service freight cars owned by applicant quarterly for each of the last 3 calendar years but not earlier than the quarter ending June 1974, and the current calendar year.

(c) *Exhibit C.* A copy of applicant's most recent year-end general balance sheet certified by applicant's independent public accountants, if available, and a copy of applicant's most recent unaudited general balance sheet as of a date no less recent than the end of the third month preceding the date of filing of the application. The unaudited balance sheet shall be presented in account form and detail as required in Schedule 200 of the Commission's Annual Report R-1 or R-2, as appropriate, together with the following schedules (where changes in accounts from the end of the prior year to date of the application have not been significant, copies of the appropriate schedules in the prior year's R-1 or R-2 with mar-

ginal notations listing the changes may be submitted:

(1) Particulars of Account 704, Loans and Notes Receivable, in form and detail as required in Schedule 201 of Annual Report R-1 for the Class I railroads, and in similar form for the Class II railroads except that for Class II railroads loans and notes receivable that are each less than \$25,000 may be combined into a single amount;

(2) Particulars of investments in affiliated companies and other investments in form and detail required in Schedules 205 and 206 of Annual Report R-1, or schedules 1001 and 1002 of Annual Report R-2, as appropriate;

(3) Particulars of balances in Accounts 741, Other Assets, and 743, Other Deferred Charges, in form and detail required in Schedule 216 of Annual Report R-1 or Schedule 1703 of Annual Report R-2, as appropriate;

(4) Particulars of loans and notes payable in form and detail required in Schedule 223 of Annual Report R-1, or Schedule 1701 of Annual Report R-2, as appropriate, as well as information as to bank loans, including the name of the bank, date and amount of the original loan, current balance, maturities, rate of interest, and security, if any;

(5) Particulars of long-term debt in form and detail required in Schedules 218 and 219 of Annual Report R-1 or Schedules 670, 695, 901, 902 and 1702 of Annual Report R-2, as appropriate, together with a brief statement concerning each mortgage, pledge, and other lien, indicating the property or securities encumbered, the mortgage limit per mile, if any, and particulars as to priority;

(6) Particulars of balance in account 784, Other Deferred Credits, in form and detail required in Schedule 225 of Annual Report R-1 or Schedule 1704 of Annual Report R-2, as appropriate; and

(7) Particulars as to capital stock in form and detail required in Schedules 228, 229, and 230 of Annual Report R-1 or Schedule 690 in Annual Report R-2, as appropriate.

(d) *Exhibit D.* Applicant's most recent annual income statement certified by applicant's independent public accountants if available, and a spread sheet showing unaudited monthly and year-to-date income statement data for

the calendar year in which the application is filed in account form similar to that required in column (a) of Schedule 300 of Annual Report R-1 or R-2 as appropriate. For those months preceding and ending upon the date of the unaudited balance sheet presented in Exhibit C, the income statement data shall be reported on an actual basis and so noted. For those months between the dates of the unaudited balance sheet and the filing of the application, the income statement data shall be reported on an estimated basis and so noted and shall be submitted in conjunction with corresponding estimated month-end balance sheets. For those months between the date of the application and the end of the year the income statement data shall be presented on a forecasted basis and so noted and shall be submitted in conjunction with a forecasted balance sheet as at the year end.

(e) *Exhibit E.* Spread sheets showing for each of the four years subsequent to the year in which the application is filed, both before and after giving effect to the proceeds of the assistance requested in the application:

(1) Forecasted annual income statement data in account form and detail similar to that required in column (a) of Schedule 300 of Annual Report R-1 or R-2 as appropriate, including the subaccounts comprising line 2 (railway operating expenses), as specified by lines 64, 92, 105, 159, 168, and 180 of Schedule 320; and

(2) Forecasted year-end balance sheets in account form and detail similar to that required in Schedule 200 of Annual Report R-1 or R-2, as appropriate.

These spread sheets shall be accompanied by a statement setting forth the bases for such forecasts.

(f) *Exhibit F.* A spread sheet showing changes in financial position for the year in which the application is filed in account form and detail as required in Schedule 309 of Annual Report R-1 or R-2 as appropriate as follows:

(1) For that period ending on the date of the unaudited balance sheet in Exhibit C, based upon actual data; and

(2) For that period from the balance sheet date to the end of the year, based upon estimated and forecasted data.

(g) *Exhibit G.* A spread sheet showing forecasted changes in financial position for each of the four calendar years subsequent to the year in which the application is filed, both before and after giving effect to any funds requested in the application and including a statement showing the bases for such estimates, in account form and detail as required in Schedule 309 of the Annual Report R-1 for Class I railroads and in similar form and detail for Class II railroads.

(h) *Exhibit H.* With respect to equipment proposed to be rehabilitated, improved, maintained, or acquired in the application, a statement indicating number of units and in-service or out-of-service status and, as appropriate:

(1) For locomotives, service type, age, size, horsepower, name of builder, description of work, and unit cost of proposed work; and

(2) For freight cars or intermodal equipment, information as to service type (box, gondola, flat, etc.), age, capacity, description of work, and unit costs of proposed work.

Such statement shall show the total cost of the project, types and quantities of work items, unit cost of each item, and distribution of such cost by primary accounts of the Commission's Uniform System of Accounts separated where applicable between material, labor, and other; the ownership of all equipment which is the subject of the project; and the dates on which work is to be commenced or completed. Direct labor, supervision, material costs, contingencies, and any applicable overhead expenses that are included in the total cost of the project should be shown separately and identified.

(i) *Exhibit I.* With respect to the maintenance, rehabilitation, improvement, acquisition, or construction of facilities proposed in the application, a statement showing, as appropriate:

(1) Track Class, as defined by the FRA Track Safety Standards in part 213 of this chapter, and maximum allowable speed under which each line on which maintenance, rehabilitation, improvement, acquisition or construction is proposed has been and is being operated and the reasons therefor, the track class, maximum allowable speed, and signal requirements necessary in

the judgment of the railroad to provide safe, reliable and competitive rail services over such lines, and the highest track class and maximum allowable speed at which each such line will be designated when the proposed project is completed;

(2) Dates on which project is proposed to be commenced and completed; and dates on which any part of sub-part into which the project may reasonably be divided is proposed to be commenced and completed;

(3) Types and quantities of work items, unit cost of each item, cost of project in total and by parts or sub-parts into which the project may be reasonably divided, and distribution of such costs by primary accounts of the Commission's Uniform System of Accounts, separated where applicable between material, labor and other. Direct labor, supervision, material costs, contingencies, and any applicable overhead expenses that are included in the costs of the project should be shown separately and identified.

(j) *Exhibit J.* A draft notice of filing, to be published by the Administrator in the FEDERAL REGISTER, which shall contain a brief summary of the project(s) proposed to be funded, including as applicable:

(1) The name and address of applicant;

(2) A brief description of the project(s) proposed to be funded, the total cost of such project(s), and the amount of Federal financial assistance sought;

(3) A brief description of the facilities or equipment to be acquired, rehabilitated or improved, including where appropriate, city or county and State location termini, and approximate distance in miles;

(4) The justification for the project(s); and

(5) A final paragraph which shall read as follows:

Interested persons may submit written comments on the application to the Associate Administrator for Federal Assistance, Federal Railroad Administration, 400 Seventh Street SW., Washington, DC 20590, not later than 30 days after the date on which this notice is published in the FEDERAL REGISTER. Such submission shall indicate the docket number shown on this notice and

state whether the commenter supports or opposes the application and the reasons therefor.

The comments will be taken into consideration by the Federal Railroad Administration in evaluating the application. However, formal acknowledgment of the comments will not be provided.

NOTE: The account forms referred to in the exhibits are those of the Commission's Uniform System of Accounts for Railroad Companies in use on October 1, 1976. However, the information required in any of the exhibits shall give effect to any modification of the Commission's Uniform System of Accounts for Railroad Companies in effect on the date of filing the application.

#### **§260.11 Preapplication and application procedure.**

(a) When a railroad or any other person has developed plans for a project for which it may wish to seek assistance under this part, a responsible official of the railroad or other person may request a meeting with the Associate Administrator for Federal Assistance of the FRA to discuss those plans. Upon receipt of such request, the Associate Administrator will promptly schedule a meeting at which the railroad or other person will present to representatives of the FRA the proposed project and discuss with them information which must be submitted in the application and the type of terms and conditions and financing documents that will be utilized in connection with financial assistance provided under section 511. Applicants are not required to prepare a draft application or other special information for the preapplication conference; however, applicants should be prepared to discuss information which management has used in making its initial decision to seek assistance.

(b) The following procedure shall govern the execution and filing of the application:

(1) The original application shall bear the date of execution, be signed with ink by or on behalf of the applicant, and shall bear the corporate seal in the case of an applicant which is a corporation. Execution shall be by all



§ 260.11

49 CFR Ch. II (10-1-98 Edition)

partners if a partnership, unless satisfactory evidence is furnished of the authority of a partner to bind the partnership, or if a corporation, an association or other similar form of organization, by its president or other executive officer having knowledge of the matters therein set forth. Persons signing the application on behalf of the applicant shall also sign a certificate in form as follows:

\_\_\_\_ (Name of official) certifies that he is the \_\_\_\_\_ (Title of official) of the \_\_\_\_\_ (Name of applicant); that he is authorized on the part of the applicant to sign and file with the Administrator this application and exhibits attached thereto; that the consent of all parties whose consent is required, by law or by binding commitment of the applicant, in order to make this application has been given; that he has carefully examined all of the statements contained in such application and the exhibits attached thereto and made a part thereof relating to the aforesaid \_\_\_\_\_ (Name of applicant); that he has knowledge of the matters set forth therein and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

(Name of official)

\_\_\_\_\_  
(Date)

(2) There shall be made a part of the original application the following certificate by the Chief Financial Officer or equivalent officer of the applicant:

\_\_\_\_ (Name of officer) certifies that he is \_\_\_\_\_ (Title of officer) of \_\_\_\_\_ (Name of applicant); that he has supervision over the books of accounts and other financial records of the affected applicant and has control over the manner in which they are kept; that such accounts are maintained in good faith in accordance with the effective accounting and other orders of the Interstate Commerce Commission; that such accounts are adequate to assure that proceeds from the financing being requested will be used solely and specifically for the purposes authorized; that he has examined the financial statements and supporting schedules included in this application and to the best of his knowledge and belief those statements accurately reflect the accounts as stated in the books of account; and that, other than the matters set forth in the exceptions attached to such statements, those financial statements and supporting schedules represent a true and complete statement of the financial position of the applicant and that there are no undisclosed assets, liabilities, commitments to purchase

property or securities, other commitments, litigation in the courts, contingent rental agreements, or other contingent transactions which might materially affect the financial position of the applicant.

(Name of official)

\_\_\_\_\_  
(Date)

(3) The original application and supporting papers, and ten copies thereof for the use of the Administrator, shall be filed with the Associate Administrator for Federal Assistance of the Federal Railroad Administration, 400 Seventh Street SW., Washington, DC 20590. Each copy shall bear the dates and signatures that appear in the original and shall be complete in itself, but the signatures in the copies may be stamped or typed.

(4) The application shall be accompanied by a filing fee in an amount equal to one-eighth of one percent of the principal amount of the obligation for which a guarantee is sought. This filing fee shall be applied towards the costs of analyzing and evaluating the application, appraising any security offered by applicant, and making any studies or investigations that the Administrator deems necessary in order to make the determinations and findings prescribed in the Act, except where the Administrator finds it necessary to retain contractors to perform or assist in performing these functions. Where any of these functions is performed under contract to the Administrator, the applicant will be charged, and shall pay promptly, an additional amount to cover the costs of such contract(s) but such charges will not exceed, when added to the initial charge, one-half of one percent of the obligation for which a guarantee is sought.

(5) The application shall be accompanied by a transmittal letter in form as follows:

Re Application for a Commitment to Guarantee [Guarantee] under section 511 of the Railroad Revitalization and Regulatory Reform Act of 1976, as amended (the "Act").

FEDERAL RAILROAD ADMINISTRATOR,  
c/o the Associate Administrator for Federal Assistance of the Federal Railroad Administration, Department of Transportation, Washington, DC.

DEAR SIR: Being duly authorized by \_\_\_\_\_ (jointly and severally/if more than one) (the "Applicant") to convey the understandings hereinafter set forth, I respectfully submit this application and remit its filing fee. By this filing, Applicant requests the Administrator to investigate the application and make the necessary findings upon which Applicant's eligibility for a Commitment to Guarantee [Guarantee] may be determined.

Applicant understands that neither the acceptance of this filing, the deposit of the filing fee, nor the commencement of an investigation acknowledges the sufficiency of the application's form, content or merit. Furthermore, Applicant understands that the Administrator will incur numerous expenses by this filing, and promises to pay, when charged, such amounts as the Administrator may assess with respect to the investigation of the application, the appraisal of security being offered, and the making of the necessary determinations and findings, up to one-half of one percent (including the filing fee) of the principal amount of the obligation for which Applicant seeks a Commitment to Guarantee [Guarantee].

Finally, Applicant understands that (1) payment of all such charges is required prior to the Administrator's final determination, (2) no charge will be cancelled nor refund made upon any termination of this application, (3) notice of this application will be published in the FEDERAL REGISTER to invite comment by interested parties, and (4) the Administrator will assess an annual premium charge, pursuant to the Act, on any obligation guaranteed under section 511.

Respectfully submitted,

\_\_\_\_\_  
Applicant(s)

\_\_\_\_\_  
Seal(s)

by \_\_\_\_\_  
Its (Their)

**§ 260.13 Information requests.**

If an applicant desires that any information submitted in an application or supplement thereto not be released by the Administrator upon request from a member of the public, the applicant must so state and must set forth any reasons why such information should not be released, including particulars as to any competitive harm which would probably result from release of such information. The Administrator will keep such information confidential as permitted by law.

**§ 260.15 Waivers and modifications.**

The Administrator may, upon good cause shown, waive or modify any requirement of this part not required by law or make any additional requirements he deems necessary.

APPENDIX TO SUBPART A—  
ENVIRONMENTAL ASSESSMENTS

Part I. Description of the environment in the area of the project before commencement of such project, together with statement of other Federal activities in the area which are known, or should be known, to the applicant. This description shall include, without limitation, the following information:

(A) *Demographic data.* Statement of population and growth characteristics of area and of any population and growth assumptions made by applicant in planning the project. Such statement should use the rates of growth in the projection compiled for the Water Resources Council by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture, commonly referred to as the OBERS projection of regional economic activity in the United States. Applicants should refer to 1972 OBERS projections for economic areas, and provide 1969 data and 1980 projections for the following: Population; manufacturing earnings; transportation, communications and public utilities earnings; agriculture, forestry and fisheries earnings; and mining earnings. Information should be provided for economic areas which the applicant's proposal would affect.

(B) *Current land use patterns.* Statement of the project's relationship to proposed land use plans, policies, and controls of affected communities, including, where appropriate, maps or diagrams. Where the project is inconsistent with any such plans, policies, or controls, the statement should describe and explain in detail the reasons for such inconsistency.

(C) *Characteristics of current operations.* The Applicant should indicate the maximum allowable speed and frequency of current rail traffic on any affected line, the number and location of grade crossings, and the length of time such grade crossings are blocked during a typical day. The Applicant should indicate derailments and fatalities or injuries resulting from accidents involving trains and motor vehicles or pedestrians on such lines. The Applicant should also indicate the hours of operation on such lines and noise levels of rail operations at 100' from the right of way. Applicants should refer to the United States Environmental Protection Agency document titled "Information on Levels of Noise Requisite to Protect Public Health and Welfare

with an Adequate Margin of Safety”, which provides a system of measuring day and night noises on a weighted average.

(D) *Air quality.* The Applicant should indicate the air quality in the region, as found in the state Air Quality Implementation Plans to meet ambient air quality standards. Each state is required to prepare such a plan under the Clean Air Act (42 U.S.C. 1857). Some states are required to have Transportation Control Plans to meet ambient air quality standards where transportation sources pose major air quality problems. Applicants should refer to state air quality agencies or to the Regional Offices of the U.S. Environmental Protection Agency for guidance.

(E) *Wetland or coastal zones.* Location, types, and extent of wetland areas or coastal zones that might be affected by the project.

(F) *Properties and sites of historical or cultural significance.* Identification of districts, sites, buildings and other structures, and objects or historical, architectural, archeological, or cultural significance that may be affected by the project. This should be accomplished by consulting the National Register and applying the National Register Criteria (36 CFR part 800) to determine which properties that may be affected by the project are included in or eligible for inclusion in the National Register of Historic Places. The National Register is published in its entirety each February in the FEDERAL REGISTER. Monthly additions and listings of eligible properties are published in the FEDERAL REGISTER the first Tuesday of each month. The Secretary of the Interior will advise, upon request, whether properties are eligible for the National Register. Officials designated by their Governors to act as State Historic Preservation Officers responsible for state activities under the National Historic Preservation Act may also be consulted. A listing of these state officials may be found at 36 CFR 60.5(d), or may be obtained from the Director, National Parks Service, U.S. Department of the Interior, Washington, DC 20240.

(G) *Publicly-owned parklands, recreational areas, and waterfowl refuges, and historic sites (45 U.S.C. 1653(f)).* (i) Protected land proposed to be used. Describe any publicly-owned land from a public park, recreation area or wildlife and waterfowl refuge or any land from an historic site or wildlife and waterfowl refuge or any land from an historic site which would be affected or taken by the proposed program or project, including the size of the land proposed to be affected or taken, available activities on the land, use, patronage, unique or irreplaceable qualities, relationship to other similarly used land in the vicinity of the proposed project, and maps, plans, slides, photographs, and drawings in sufficient scale and detail to clearly show proposed project. Include a description of im-

pacts of the proposed project on the land and changes in vehicular or pedestrian access.

(ii) Significant area. Include a statement of the national, State, or local significance of the entire park, recreation area, wildlife or waterfowl refuge, or historic site as determined by the Federal, State or local officials having jurisdiction thereof. In the absence of such a statement, protected land is presumed to be located in an area of national, State or local significance.

Part II. The probable impact of the project on the environment and measures which can be taken to mitigate adverse impacts. The applicant shall (1) assess the positive and negative environmental effects, including primary, secondary, and other foreseeable effects, on each of the areas specified in Part I of this appendix, including long-term impacts associated with the increased intensity, if any, of rail operations, and (2) list measures which can be taken to mitigate adverse impacts. Mitigation measures include control of hours of operation, coordination of street blockages with adjacent communities, dust and erosion control measures, and proposed methods of tie disposal. In addition, the applicant shall provide the following.

(A) Statement of the extent to which any of the impacts of the project represent irreversible or irretrievable commitments of resources. This requires identification of the extent to which implementation of the project irreversibly curtails the range of potential uses of the environment. “Resources” include the natural cultural resources lost or destroyed as a result of the project.

(B) Statement of the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity. This shall include a brief discussion of the extent to which the proposed action involves trade-off between short-term environmental gains at the expense of long-term losses, or vice versa, and a discussion of the extent to which the proposed action forecloses future options.

(C) Statement of any probable adverse environmental effect which cannot be avoided, such as changes in exposure to noise and changes in level of noise or vibration; water or air pollution; undesirable land use patterns; impacts on public parks and recreation areas, wildlife and waterfowl refuges, or historic sites; damage to life systems; congestion of street traffic in adjacent communities; delays in the provision of essential services (police, fire, ambulance), anticipated changes in accident patterns and other threats to health; and other consequences adverse to the environmental goals set out in section 101(b) of the National Environmental Protection Act, 42 U.S.C. 4331(b). In considering noise levels, applicants should note any conflicts between projected noise levels from rail operations and HUD standards for noise at sensitive sites, such as

schools, hospitals, parks and residential locations. (U.S. Department of Housing and Urban Development, "Noise Abatement and Control: Department Policy Implementing Responsibilities and Standards," Departmental Circular 1390.2, Chart; External Noise Exposure Standards for New Construction, April 4, 1971)

(D) Statement of construction impacts, identifying any special problem areas and including:

(i) Noise impacts from construction and any specifications setting maximum noise levels.

(ii) Disposal of spoil and effect on borrow areas and disposal sites (include any specifications).

(iii) Measures to minimize effects on traffic and pedestrians.

(iv) Consideration of non-point source pollution such as might result from water runoff.

(E) Statement of any positive or negative impacts on energy supply and natural resource development, including, where applicable, any effect on either the production or consumption of energy or other natural resources. Discuss such effects if they are significant.

(F) Discussion of problems and objections raised by other Federal, State or local agencies, and citizens with respect to impact of the project on the environment.

Part III. Discussion of any alternatives to the project that have been considered with respect to impact on the environment. If cost-benefit analyses have been performed, the extent to which environmental costs have been reflected in the analysis should be stated. Underlying studies, reports, and other information obtained and considered in preparing each section of the statement should be identified. For energy comparisons, a possible source is Oak Ridge National Laboratory Report, "Energy Intensiveness of Passenger and Freight Transport Modes" by Dr. Eric Hirst, April, 1973. For analyzing community impacts, the following report may be useful: "The Impacts on Communities of Abandonment of Railroad Service," July, 1975, prepared for the U.S. Railway Association by the Public Interest Economics Center, Washington, D.C. In examining the environmental effects of highway transport as an alternative to rail service, applicants may wish to use the following publication: "A Study of the Environmental Impact of Projected Increases in Intercity Freight Traffic, August, 1971, prepared for the Association of American Railroads by Battelle, Columbus, Ohio."

## Subpart B—Standards for Maintenance of Facilities by Recipients of Obligation Guarantees

### § 260.17 Applicability.

This subpart prescribes standards governing the maintenance of facilities, as defined in subpart A of this part, that are being acquired, rehabilitated, improved, or constructed with the proceeds of a guaranteed obligation, by the recipient of such guarantee for the period during which any portion of the principal or interest of such obligation remains unpaid.

### § 260.19 Definitions.

The terms defined in subpart A of this part shall have the same meaning for the purposes of this subpart that such terms are given in §260.3 of this part.

### § 260.21 Standards.

(a) When the proceeds of an obligation guaranteed by the Administrator are used to acquire, rehabilitate, improve or construct track, roadbed, and related structures, the guarantee recipient shall, as long as any portion of the principal or interest of such obligation remains unpaid, maintain such facilities in at least the highest track Class, as defined by FRA Track Safety Standards in part 213 of this chapter, as that Class in which the rehabilitated, improved, acquired, or constructed track is to be operated upon completion of the project for which the obligation was guaranteed unless a waiver is granted in accordance with § 260.25.

(b) When the proceeds of an obligation guaranteed by the Administrator are used in facilities, including those mentioned in paragraph (a) of this section, the recipient shall, during the period in which any portion of the principal or interest in such obligation remains unpaid, maintain such facilities in a manner consistent with sound engineering and maintenance practices and in a condition that will permit the level of use that existed upon completion of the acquisition, rehabilitation, improvement or construction of such facilities unless a waiver is granted in accordance with § 260.25.

**§ 260.23 Inspection and reporting.**

(a) The facilities subject to the provisions of this subpart shall be inspected at such regular intervals as the Administrator deems necessary to assure compliance with the standards set forth in § 260.21. Each recipient shall permit representatives of the FRA to enter upon its property to inspect and examine such facilities at reasonable times and in a reasonable manner. Such representatives shall be permitted to use such testing devices as the Administrator deems necessary to insure that the maintenance standards imposed by this subpart are being followed.

(b) Each recipient shall submit to the Administrator annually financial records and other documents detailing the maintenance performed and the inspections conducted which demonstrate that the recipient has complied with the standards in § 260.21.

**§ 260.25 Waiver.**

Any recipient of a guarantee may petition the Administrator in writing for relief from any or all requirements imposed by this subpart. The Administrator may, for good cause shown, waive or modify any requirements of this part. Good cause may include, but is not limited to, insufficient capital resources of the recipient to comply with these maintenance standards or changes in the level of service required for any facility subject to this subpart.

**§ 260.27 Impact on other laws.**

Standards issued under this subpart shall not be construed to relieve the recipient of any obligation to comply with any other Federal, State, or local law or regulation.

**§ 260.29 Penalties.**

If the Administrator finds that a guarantee recipient has violated the requirements of this subpart, such recipient will be subject to civil action for injunction to cease activities which violate this subpart and for any other appropriate civil or criminal relief, including termination, suspension, and punitive damages.

**Subpart C—Procedures for Computing the Internal Rate of Return on Projects****§ 260.31 Applicability.**

This subpart prescribes the procedures to be followed and the format to be utilized in computing the IRR under paragraph (a)(7)(i) of § 260.7 of subpart A of this part.

**§ 260.33 Definitions.**

As used in this subpart—

(a) *Investment* means any substantial non-recurring expenditure even if expensed for accounting purposes.

(b) *IRR* means the estimated internal rate of return on a project for which an application for financial assistance is filed pursuant to this part.

(c) *IRS* means the Internal Revenue Service.

**§ 260.35 Procedures to be followed and format to be utilized.**

(a) A narrative discussion of the IRR computation for the project consisting of the following five parts shall be prepared and provided:

(1) *A detailed description of the project.* This description must present the following: The objectives of the project; what assets will be improved, rehabilitated, acquired or constructed; where they will be located; and how they will be used. It must also describe any other work to be done as a part of the project, and any operating changes, including retirement of assets, which will accompany the investment. For these purposes, the project shall be deemed to include all expenditures (including those for which no Federal assistance is requested) necessary to carry out its objectives.

(2) *A detailed description of the base case.* The base case is the most favorable alternative action the applicant could take with little or no investment. The description must be comparable in scope to the description of the project. In some cases, the most favorable alternative action may be to do nothing, i.e., making no change in the current situation. In other cases, the applicant may have other alternative actions such as rerouting traffic, changing operating practices (perhaps with an increase in operating costs), or

relying more heavily on facilities or equipment belonging to others. If the applicant has considered more than one alternative action (requiring little or no investment) to the project, the applicant must describe each of the actions considered and give the rationale for the selection of the base case from among those other actions.

(3) *A discussion of key assumptions.* All general assumptions and those relating only to a particular cash flow impact which substantially affect the IRR should be explained. Assumptions regarding traffic volumes deserve particular attention. The applicant must specify how much traffic is expected if the project and base case are undertaken, and where the difference, if any, between the project and base case is expected to come from (e.g., diverted from truck, diverted from other railroads, generated by the project, etc.). Other key assumptions may relate to actions by third parties, such as regulatory agencies and other railroads.

(4) *A discussion of each cash flow impact resulting from the project or base case.* The applicant must identify all the cash receipts and disbursements resulting from the project but not the base case, and vice-versa. Cash flows which would be the same in either event should not be considered. For each cost and benefit used in the IRR computations, the applicant must explain why the particular cash flow will result from the project or base case, and how the size of the cash flow and the corresponding measure in physical units were estimated. In addition, the applicant must identify and discuss important costs and benefits which it has not been able to quantify. The applicant must note which of the benefit and cost items could be measured to confirm the predictions in the IRR computation, and must suggest how such measurements could be made. Appendix A of this subpart lists the most common cash flow impacts of railroad investment projects and base case alternatives, indicates the kinds of actions likely to involve each type of cash flow, suggests how each might be measured (both in physical and monetary units), and discusses special problems associated with each. Appendix A is not exhaustive; other cash flow

items should be included in the analysis as appropriate.

(5) *A discussion of the principal areas of uncertainty.* This discussion must indicate why particular values might be different from those used in the computation, and the range into which each uncertain value could be expected to fall. It must also indicate the applicant's subjective level of confidence that the computed IRR is a reasonably close prediction of the project's and base case's financial performance. In some circumstances, the applicant must point out where the IRR fails to incorporate certain important features of the project or the base case, or both. Applicant may enhance its discussion by presenting examples of its own prior experiences with IRR, stating, perhaps, that an audit of past computations has shown marked deviations from actual results regardless of the detail of those computations.

(b) For the project (as it relates to its base case alternative), a thorough presentation of all the computations underlying the IRR using the Forms I-V of appendix B to this subpart shall be prepared and provided. State and local tax impacts need not be included in the computations, unless the applicant has determined that their inclusion substantially affects the IRR. The computation of the IRR must follow the four steps described below. (This procedure cannot be used if the project consists of replacing an asset, usually equipment, which would otherwise remain in service (at high cost) for only a few more years. In that situation, the lifetime of the project (the new asset) is substantially longer than the lifetime of the base case (the old asset), so that it is not possible to get a differential cash flow in every year of the project's life. A possible approach for handling such cases is to determine the discount rate which gives the same average annual cost per unit of output for both the project and the base case. Because it is expected that very few of the applications will involve such replacements, the procedure for handling them will not be detailed here but will be provided upon request.) The foregoing does not apply to the rehabilitation of track or similar replacement of components of an asset which could

reasonably be kept in service at high cost for at least 15 years (or the life of the replaced material, if shorter). The IRR on such projects must be computed in accordance with the procedures mandated by this subpart.).

(1) *Step 1: Determination of before-tax case flows.* The applicant must determine, for each year of the project's expected useful life, up to a maximum of 15 years (unless the cash flow impacts of later years would substantially affect the IRR), both the project's and base case's before-tax cash flow impacts (receipts and disbursements). The cash flow estimates must not include the effects of inflation, but rather must be done in constant dollars. The effects of financing must also be excluded; that is the cash flows must be estimated as if the required cash were immediately available at no cost.

The various cash flow impacts for this step 1 must be shown on Forms I through V of appendix B as explained below. On Forms I through V cash flow impacts occurring in the first year of the project and base case are assigned to and recorded in the time period year 1. Cash flows in subsequent years are all assigned to and recorded in the year in which they occur regardless of whether they occur at the beginning or end of the year. For purposes of assigning and recording cash flow impacts of the project and base case, it will be assumed that the project's starting date and thus the commencement of year 1 begins as of the first of the January following the year in which an application for financial assistance is filed.

(i) Capitalized investments which would occur as a part of the project but not in the base case must be entered in Column 1 of Form I. The capitalized investment includes capitalized engineering work, installation expenditures and other startup costs allowable in reporting to the IRS. The total investment for the project must be divided into portions which are homogeneous with respect to depreciation method (if depreciable), depreciation period (if depreciable), year in which the assets enter service, and whether the assets qualify for investment tax credit. (If applicant has a considerable tax credit carryforward, the tax credit must be shown only in the year or years it will

result in a reduction of tax payments.) A separate form should be completed for each such portion. Similarly, a set of Forms I must be completed for a capitalized investments which would be made as part of the base case but not the project.

(ii) Sales of released assets (as useful assets or as scrap), which would occur as a part of the project or the base case, must be entered in Column 1 of Form II. As was the case for capitalized investments, there must be a separate Form II for each portion of the assets sold, such that each portion is homogeneous with respect to tax treatment and year of sale. Form II must also be completed for retirements of assets, even though the sale price is zero, if the retirement will affect the applicant's income taxes and thereby the applicant's cash flow. The sale or retirement of an asset at the end of the project's life, if the cash flow impact is substantial enough to merit inclusion in the computation, must also appear on one or more Forms II. (If a project would continue an asset already owned in its prior use but the base case would put the asset to an alternative use, and if the cash flow from that alternative use is difficult to determine, the applicant may do the analysis as if the asset were to be sold in the base case at its fair market value when put to the alternative use. Similarly, if the base case would continue an asset in its present use but the project would result in the asset being employed in an alternative use, the anticipated cash flow of which would be difficult to determine, the asset in the project may be treated as a sale at fair market value in the IRR computations. In either event, the market value of the asset otherwise put to an alternative use would be entered in Column 1 of a Form II and the asset in its current use (in either the project or base case, as the case may be) would be recorded, as to continuing depreciation and income tax credit, if any, on Form I and, as to expenses and contribution to profit, on Form III. However, whenever possible, the anticipated cash flow of the alternative use, whether in the project or base case, should be entered on Form III rather than treated as a theoretical sale at fair market value.)

(iii) Expense items or contributions to profit which arise by reason of the project or the base case must be documented on Form III for the respective case, with a separate form being used for each item.

Columns 1 and 2 of Form III must be completed unless the difference of column 3 can be ascertained only through a direct computation (as, e.g., car-day savings resulting from faster movement over rehabilitated track). When practical, expenses and traffic are to be expressed first in physical units (Columns 1, 2 and 3) and then converted to dollars (Column 4). In instances where this is not practical, the applicant may estimate expenses and contribution directly in dollars using only Columns 1, 2, and 4. In Columns 1 and 2, expense items should always be enclosed in parentheses because they represent cash outflows. Thus, positive numbers in Columns 3 and 4 will indicate that the project produces a larger cash inflow (or smaller cash outflow) than the base case.

(2) *Step 2: Determination of after-tax cash flows relating to capital assets.* The applicant must compute the annual cash flows after Federal income tax corresponding to each of the before-tax flows recorded on each Form I and Form II in the previous step. If the applicant expects to pay taxes in some years but not others, the applicant will undoubtedly carry forward (or back) the tax losses and credits from years in which no tax was paid, so as to take full advantage of them. In that case, the applicant must estimate when such tax benefits will actually be received, and include them in the cash flow stream at the appropriate time. The appropriate tax rate for such computations is the applicant's marginal tax rate. This is the rate which would apply to one additional dollar of income earned by the applicant. Normally, the marginal rate will be 48% for Federal taxes except in years in which the applicant does not expect to pay taxes. The average or effective tax rate (found by dividing a firm's actual tax payments by its net income before taxes) is not appropriate for this purpose. If the tax rate assumed is different from 48% or if the computations assume the applicant will not pay

taxes in certain years, then those assumptions must be explained in the discussion of key assumptions. The tax-related computations must be shown on the same forms as were used to record the pre-tax cash flows. Additional working papers should be submitted as necessary to clarify the computations. The computations to be done on the two forms are as follows:

(i) On each Form I, the applicant must indicate in Column 2 the depreciation schedule which it expects to use in reporting to the IRS. In Column 3, the applicant must indicate how much its tax bill will be reduced as a result of the depreciation shown in Column 2. (If the applicant expects to pay taxes every year, Column 3 is simply 48% of Column 2.) In Column 4, the applicant must indicate the tax reduction, if any, it expects from investment tax credit. (The effect of the tax credit must be computed using the flow through method, in which investment credits are generally treated as reductions in income tax expense of the year in which the credits are actually realized, rather than being deferred and amortized over the productive life of the acquired property). Column 5 is the net after-tax cash flow associated with the investment.

(ii) On each Form II, the applicant must indicate in Column 2 the increase (or decrease) in its Federal income tax payments resulting from the difference between the sale price and the book value of assets to be sold by reason of the project or base case. If an asset is released without a sale or a corresponding write down of book value, Form II is not used, but Form I is used to reflect continuing depreciation as before the release. In Column 3, the applicant must record any recapture of investment tax credit by the IRS. (Such recapture can only occur when an asset is disposed of before it has been in service for seven years.) Finally, Column 4 records the net cash flow in or out.

(3) *Step 3: Determination of aggregate after-tax cash flow.* The applicant must determine the project's aggregate after-tax cash flow using Form IV. This shall be done as follows:

(i) For each year, the corresponding after-tax cash flow (Column 5) on the



various Forms I on which the “project” box was checked are summed, and the total entered into Column 1 of Form IV. Then the net after-tax cash flows on the base case Forms I are summed and entered into Column 2 of Form IV.

(ii) Similarly, the project and base case Forms II (Column 4) are consolidated and entered into Columns 3 and 4, respectively, of Form IV.

(iii) The Forms III (Column 4) are consolidated into Column 5 of Form IV. The corresponding cash flow after Federal income tax is recorded in Column 6. If the applicant expects to pay taxes every year, Column 6 is simply 52% of Column 5. If applicant expects to pay no taxes, the two columns are identical. If applicant expects to pay taxes in some years but not others, the applicant must incorporate the effects of carrying losses forward (or back) into the estimated after-tax cash flow.

(iv) The aggregate net cash flow for the project relative to the base case is then found and entered in Column 7 of Form IV.

(4) *Step 4: Computation of the IRR.* The applicant must determine the discount rate for which the present value of the differential cash flow stream is zero. That is, the applicant must find the value of  $r$  which makes the expression

$$\sum_{i=1}^r t \frac{c_i}{(1+r)^i}$$

equal to zero. In the above expression,  $r$  is the discount rate applied to future cash flows;  $i$  is an index denoting a particular year of a project's life;  $n$  is the number of years in the project's life; and  $c_i$  is the differential cash flow in year  $i$ . Computer programs for calculating the rate of return are widely available. If a program is utilized, copies of the printout showing input and output data, and a brief explanation of the program function must be included in the application. If the applicant chooses not to use such a computer program to find the IRR, the applicant may use Form V. If the IRR lies off the graph, it is sufficient to report that the IRR is negative or above 50%. If the nature of the cash flow stream is such that a unique IRR cannot be found, the work done to develop the cash flow

stream must be submitted with a note that no IRR could be computed.

(c) Copies of all financial analyses which the applicant did on rejected alternatives to the project, including changes in scale or scope. The applicant need not do any such analyses beyond those already done, nor need the format, assumptions, or procedures used in those analyses be changed to conform to the requirements of these regulations.

(d) A reconciliation between the cash flows used in the IRR computations and all forecasted data presented in the application, both before (for the base case) and after (for the project) giving effect to Federal assistance. This reconciliation must indicate what inflation factor or factors were used in developing the forecasted financial statements as compared to the constant dollar figures used in the IRR computations. The reconciliation must also show how each of the individual parts and subparts of the project relates to the applicant's forecasted financial statements.

#### APPENDIX A TO PART 260—SELECTED CASH FLOW IMPACTS

Railroad investments usually affect the investor's cash flow by changing some of the following things:

- Use of assets.
- Contribution from traffic.
- Labor requirements.
- Locomotive requirements.
- Requirements for cars, trailers, and containers.
- Maintenance material consumption.
- Energy consumption.
- Accident rates and severity.
- Expenditures needed to meet legal requirements.
- Salvage value.
- Installation and start up expenses.

While this list is not exhaustive it does identify the most common cash flow impacts.

Some of the items listed, such as start up expenses, are almost always costs of projects or base cases, rather than benefits. Others, such as salvage value, are usually benefits. Most of the items, however, may be either project or base case benefits or costs, depending on the particular situation.

This appendix briefly discusses each of the eleven factors listed above. The discussions include four parts: a list of the kinds of actions which often involve the particular cash flow impact in question; the physical units in which the impact is generally measured;

suggestions for converting the physical units to their monetary equivalent; and notes on special characteristics or problems associated with the particular cash flow impact.

#### USE OF ASSETS

*Characteristic Actions:* Assets are often released for sale or alternative uses when they are replaced or made unnecessary by new assets. Examples are pole line materials released when microwave is installed; shop equipment released when similar new equipment is acquired; rail replaced by rail in better condition; and land and track materials released when yards, shops, and terminals are made unnecessary by new facilities elsewhere. Some other types of actions, such as line changes and the installation of centralized traffic control, often permit some track segments to be abandoned, thereby releasing track material for sale or other uses.

On the other hand, some actions involve the use of assets already owned, thereby prohibiting their sale or use for other purposes. Examples are car modifications and projects involving land and buildings already owned.

*Physical Units:* Feet (or miles) of rail, number of ties, acres of land, etc.

*Monetary Value:* The value of an asset released by an action depends on what will be done with it. The value of an asset occupied by an action, on the other hand, depends on what would have been done with it in the absence of the action. Regardless of whether it is the action or its alternative which makes the material available, one must first carefully specify what is assumed to happen to the asset both with and without the action, and identify the factors which change the cash flow stream. Depending on the particular circumstances, any of the following might be involved: Payment received from selling the asset; a multi-year stream of income produced by the asset in some use; tax paid on the sale of the asset; expenditure for dismantling and/or moving the asset; recapture by the IRS of investment tax credit taken when the asset was purchased (if it had been in use for less than seven years). Also, if the owner of the asset sells or retires it, he would lose the tax reductions he is receiving from depreciating the asset. It is the use of the released asset which values it. Thus, a released asset such as rail which, by cascading, results in the subsequent release of less valuable rail, must be valued in its use and not as the value of subsequently released assets.

In cases in which the asset is transferred to another use which produces income over several years, the effect of releasing the asset extends over several years, and must be expressed as a series of annual cash flows, rather than a lump sum.

*Special Features:* A common error in project evaluations is to value a used asset at its book value (i.e., purchase price less accumu-

lated depreciation). The book value may be far from the value of the asset on the open market, especially in the case of rail released by track abandonments and land released by the abandonment of facilities in urban areas. The only way the book value of retired assets enters into the cash flow stream is in determining the tax paid on the sale of the asset (or the tax saving if the asset is discarded or sold for less than its book value).

In calculating the tax paid on the sale of a released asset, the ordinary tax rate (48%) should be used, except when the capital gains rate applies.

It is sometimes difficult or impossible to estimate the contribution to profit which a particular asset, such as second hand rail, will produce in an alternative use. In such cases, it is better to do the financial analysis on the assumption that the asset in question would be sold at its fair market value (even though it would in fact be put to an alternative use), rather than leaving the asset out of the computations entirely.

#### CONTRIBUTION FROM TRAFFIC

*Characteristic Actions:* Actions which affect the availability and attractiveness of the railroad to shippers. The action may involve giving the shipper better access to the railroad (track extensions and terminal improvements) or better service. Line consolidations, on the other hand, may involve abandonments which deprive some shippers of service, or may result in such degradations in service quality that some shippers switch to other carriers. Faster service can result from more power or improvements in track, yards, terminals, signals, and communication. Another component of service quality, reduced loss and damage to lading can be occasionally improved by eliminating accidents (wayside warning devices), using specialized cars, and making improvements to yard and terminal facilities. Service quality can also be enhanced by purchases of additional freight cars and trailers, so as to reduce the likelihood of car shortages. Another aspect of service quality is reliability, which may be affected by improvements in yards, terminals, and communications, as well as the elimination of accidents. Still another component of service quality is the cost to the shipper of packing and loading, which may be affected by investments in specialized cars and terminal facilities.

*Physical Units:* Car-loads.

*Monetary Value:* The contribution to profit is found by subtracting the variable cost of moving the traffic from the associated revenue. The variable cost is best estimated by a careful study of the operations and costs of the particular movements involved.

Such a study is not practical for certain traffic. In these cases the best alternative may be to estimate the variable cost using

system averages, as is done in the Interstate Commerce Commission's Rail Form A, Carload Cost Scales, and Rail Revenue Contribution studies. Where appropriate, such system average costs should be adjusted to exclude costs not involved in the particular movement, and to reflect the current, not the historical, costs of assets to be purchased in the future.

*Special Features:* The contribution from new traffic resulting from an improvement is extremely important, but it is also one of the most difficult of all project benefits to estimate. One major problem is estimating the volume of traffic likely to result from a particular improvement, especially if the improvement affects service quality. A second serious problem is estimating the variable cost of particular movements. (These estimates may be facilitated by a six-part FRA cost study currently in progress.)

#### LABOR REQUIREMENTS

*Characteristic Actions:* Labor requirements are often reduced by automation, facility consolidation, faster train running times, reductions in switch engine requirements, better communications for operations, and reductions in maintenance needs. On the other hand, actions involving new or expanded yards, terminals, or shop facilities may increase manpower requirements.

*Physical Units:* Man-hours, number of employees.

*Monetary Value:* The value of labor depends on the particular situation. If the action results in a change in the number of employees or in overtime hours, the wages and fringe benefits associated with that change directly affect the railroad's cash flow. If an action changes or eliminates work for employees without changing jobs or overtime, the change will affect the railroad's cash flow if either:

The man-hours released or occupied by the change can be used on other profitable tasks which would otherwise not be done, or which would be accomplished by paying overtime or hiring more people; or

The action can be combined with one or more other actions, each of which saves or requires a fraction of an employee, so that the set of actions results in a change in the size of the work force.

In either case, the value of the man-hours released or consumed is the cost of the associated wages and fringe benefits. On the other hand, if the result of the action is simply to give existing employees more (or less) free time on the job, no cash impacts can be attributed to the change in the amount of work.

*Special Features:* There are several different kinds of labor which a project might affect: road crews, yard crews, maintenance-of-way, shop, inspection, clerical, and other.

Determining the wages and fringe benefits associated with a particular man-hour is often not straightforward because of rules governing employee compensation. The payment of some train crews on a mileage rather than a time basis is an example.

Wage and fringe benefit savings resulting from the elimination of jobs may be at least partially offset by costs incurred as a result of labor protection agreements. Depending on the situation, these costs may be lump-sum or recurring. Determination of employee protection costs is complicated by the fact that the individual who holds a position which is to be eliminated may not be the person who is actually laid off as a result of the elimination. Rather, the person whose job is actually eliminated may displace a person with less seniority holding a similar job. That person may, in turn, displace another employee and so on.

#### LOCOMOTIVE REQUIREMENTS

*Characteristic Actions:* Actions reducing train running time (track upgrading, line changes, signal system improvements, etc.), or which permit moving the same traffic with fewer trains (yard consolidations) or with fewer terminal delays (yard and terminal improvements) can all reduce the number of road engines needed. The number of switch engines needed can be reduced by some types of yard and terminal improvements, such as yard consolidations, track changes, and the installation of weigh-in-motion scales. Actions which lead to increased traffic, such as track extensions, may increase the need for both types of locomotives.

*Physical Units:* Locomotive-years (or locomotive-hours or locomotive-days). Note that one does not have to save 365 locomotive-days to save a locomotive-year, since locomotives are not available for service 365 days per year because of maintenance work. If a railroad's locomotives were available for service 78% of the time, applicant would only have to save 285 locomotive-days to save a locomotive-year.

*Monetary Value:* One way to estimate the value of a locomotive-year is the following four-step process:

1. Estimate the after-tax cash flow stream resulting from owning a locomotive. The components of this stream would be: The investment expenditure; investment tax credit; tax savings from depreciation; normal maintenance; overhauls; and salvage value. The cash flow stream must be in constant dollars of the same base year as would be used in the rest of the IRR computation.

2. Calculate the net present value of the cash flow stream, using the yield on 180-day United States treasury bills as the discount rate.

3. Find a stream of equal annual outlays which produces the same net present value

as was found in Step 2. The annual outlay may be found by multiplying the net present value by

$$\frac{r(1+r)^a}{(1+r)^a - 1}$$

where  $r$  is the yield in Step 2, and  $n$  is the number of equal annual outlays.

4. Find the pre-tax equivalent of the after-tax annual payment found in Step 3, by dividing the after-tax figure by one minus the railroad's marginal tax rate. This is the pre-tax value of a locomotive year, expressed in dollars of the base year chosen in Step 1.

The procedures set forth above for valuing estimated savings or costs from locomotive requirements on a locomotive-year basis may be used only where it is not practical to associate particular future locomotive purchases with the project. Where practical, changes in locomotive requirements (except for locomotives belonging to other railroads) must be treated as capital investments that would have to be made in the base case but not in the project or vice versa, with due recognition given to those fixed charges associated with ownership of locomotives that would be incurred if such locomotives were purchased. This also applies to Requirements for Cars, Trailers, and Containers, which follows.

Increased locomotive productivity is somewhat analogous to increased labor productivity (see Labor Requirements) in that it may not always lead to significant cash savings. This is especially true with switch engines, since a decrease in car movements may not reduce the number of engines required if the number of locations which the switch fleet must serve does not also change. On the other hand, reducing the number of locations covered (by consolidating yards, for example) may decrease switch engine requirements. As in the case of increased labor productivity, increased locomotive productivity affects a railroad's cash flow only if a locomotive can be sold (or a purchase avoided) or if the locomotive is able to do other profitable work which would not be done otherwise.

*Special Features:* The locomotive values computed using the procedure above include maintenance and overhaul expense, but not fuel or other labor expense. Therefore any concomitant change in fuel or labor (except maintenance) should be estimated separately. Care should be taken to exclude changes in locomotive maintenance costs from any other estimates of charges in maintenance costs resulting from the investment project.

#### REQUIREMENTS FOR CARS, TRAILERS, AND CONTAINERS

*Characteristic Actions:* Actions which change train running time (such as track upgrading, purchase of additional power, line changes and signal improvements); actions which change the time cars spend in yards, or permit bypassing yards altogether (yard improvements and improved communication systems); actions which change the time cars are out of service for maintenance (shop facilities, car modifications, track upgrading); and actions which affect the turn-around time for cars in terminals.

*Physical Units:* Car-days.

*Monetary Value:* The procedure for finding the value of a locomotive-year or day is equally applicable to cars. (See Locomotive Requirements).

Another acceptable approach is to use per diem costs (including incentive per diem) since those charges approximate the cost of ownership. Although incentive per diem is in addition to car ownership costs, its inclusion in the car-day value is justified because it reflects, to some degree, the fact that a railroad sometimes loses business during short peaks in demand, because it is not immediately able to buy or hire the cars necessary to take advantage of a particular business opportunity.

Over the long run, however, a railroad need not continually lose traffic, so long as it is willing to incur the cost of owning a sufficient number of cars. Therefore, it is not appropriate to use the investing railroad's average contribution per car-day to value improved car utilization in IRR calculations. Given that per diem is a satisfactory approximation to the cost of car ownership, there is no need to distinguish between foreign car-days saved and investor car-days saved by an action.

*Special features:* The valuation of improved car utilization is complicated by the fact that some projects, such as improvements in classification yards, may affect the entire car fleet, while other projects may affect only certain kinds of cars. For example, it may be that all the cars affected by a particular terminal improvement are refrigerator cars. The car-day value to be used is therefore not necessarily the same in all projects. Rather, it depends on the type of cars involved.

#### MAINTENANCE MATERIAL CONSUMPTION

*Characteristic Actions:* Since nearly all assets require maintenance, almost any action involving the acquisition of new assets will lead to expenditures for maintenance materials. On the other hand, actions which involve taking assets out of service, such as replacements, eliminate the need to maintain the retired assets. Improving track conditions may decrease equipment maintenance,

while decreasing traffic volumes may decrease track maintenance needs.

*Primary Units:* List of materials involved (and quantities).

*Monetary Value:* The value of maintenance materials is the price of those materials (plus freight in and labor added, if any). Where a direct relationship exists between maintenance labor and materials, it may be more convenient to first estimate man-hours and then compute material costs in proportion to the man hours.

*Special Features:* The material costs (or savings) associated with changes in maintenance may include work equipment, as well as the materials consumed during maintenance.

Usually the best basis for predicting maintenance costs is the maintenance history of similar assets in similar service. Manufacturers can also sometimes provide projections of maintenance expense. To the extent practical, care should be taken to specifically reflect cyclical maintenance (overhauls) by assigning the maintenance cost (or savings) to the years in which they will actually occur, rather than normalizing, or smoothing out, the cash flow stream.

Assets which permit maintenance savings often involve maintenance costs which partially offset those savings.

#### ENERGY CONSUMPTION

*Characteristic Actions:* Actions changing locomotive activity or locomotive efficiency. Line changes and locomotive replacements may reduce fuel consumption by road engines. Improvements in yards and terminals, as well as locomotive replacements, may reduce the fuel consumed by switch engines. Improvements in buildings and structures can cut heating costs.

*Physical Units:* Gallons, kilowatt-hours, etc.

*Monetary Value:* Found by multiplying the fuel or electricity by the current price per unit.

*Special Features:* Road engine energy consumption generally varies with gross tonmiles and speed. Yard engines are frequently idling, consuming energy, even when not in use. Thus, energy consumption may vary with the number of switch engine crew shifts rather than the amount of work done. Care should be taken not to count changes in locomotive energy consumption twice, once as a change in locomotive requirements and once as a change in energy consumption.

#### ACCIDENT RATES AND SEVERITY

*Characteristic Actions:* Accidents may be reduced by wayside warning detectors (hot box detectors, grade crossing protection, dragging equipment detectors, etc.), lading protection devices, some specially equipped

cars, some yard and terminal improvements, and track upgrading.

*Physical Units:* Accidents (of several different types) per year.

*Monetary Value:* Only the monetary cost likely to be borne by the railroad would be relevant to the IRR computation. This would include damage to equipment, roadway and lading, and the cost of wreckage removal as well as injury to people. The expected cost of an accident varies drastically, depending on the particular situation.

*Special Features:* Accidents delay trains and yard and terminal operations. Thus, actions which reduce accidents may also improve car and locomotive productivity. Care should be exercised that such benefits are counted only once.

#### EXPENDITURES NEEDED TO MEET LEGAL REQUIREMENTS

*Characteristic Actions:* Actions permitting abandonment of old facilities or equipment may reduce the need for such expenditures. New facilities may make some such expenditures necessary.

*Physical Units:* List of actions, such as grade crossing protection, water treatment facilities, or the installation of retention toilets, which would be required to bring the facilities or equipment in question up to legal standards.

*Monetary Value:* The total cost of the improvements including engineering (except engineering work already done), capital expenditure, maintenance, and operation. These expenditures should be offset by the appropriate tax reductions (resulting from depreciation and investment tax credit) which would result from those improvements.

#### SALVAGE VALUE

*Characteristic Actions:* Acquisition of new assets or disposal of existing assets.

*Physical Units:* List of the particular assets involved (such as tamping machine, 500' of 112# rail, etc.)

*Monetary Value:* The cash flow resulting from disposing of the assets or using them elsewhere. (See Use of Assets).

*Special Features:* The salvage value of most assets declines as the asset ages. The value of land often remains roughly constant, as does the value of materials in well maintained track. The salvage value of assets which cannot be used for other purposes, such as a culvert, is zero.

When salvage values are small relative to other benefits and costs, and when they are heavily discounted (because they occur far in the future), their impact on the IRR is likely to be negligible. In such cases, the salvage value can be safely ignored.

INSTALLATION AND START-UP EXPENSES

*Characteristic Actions:* Most fixed facilities.  
*Physical Units:* Man-hours, list of materials required.

*Monetary Value:* As noted in the discussion of labor requirements the value of the labor depends on the particular situation. The

value of the materials would normally be their market price.

*Special Features:* Often all or part of the expenditures needed to get a new asset in place and operating is capitalized. In such a case, the capitalized portion of the expenditure should be included as part of the investment cost, but not counted again as a start-up expense.

APPENDIX B TO PART 260—FORMS TO BE USED IN COMPUTING IRR

Form I.—Analysis of capitalized investment (constant dollars)

Applicant .....  
 Project .....  
 Date .....  
 Sheet No ..... of.....

Portion of investment covered by this sheet .....  
 Depreciation method used ..... Depreciation period .....  
 This investment would occur in the  Project  Base case (check one)

Year	(1)—Amount capitalized	(2)—Depreciation	(3)—Tax reduction from depreciation	(4)—Tax reduction from investment tax credit	(5)—Net cash flow in (out)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
Totals.					

*Instructions*  
 Use separate forms for portions of the investment which would receive different tax treatment or which would enter service in different years.  
 Estimate amounts in cols. 1–4 as would be done in reporting to IRS.  
 Col. 5 equals col. 3 plus col. 4 minus col. 1.

Form II.—Analysis of sale or retirement of assets (constant dollars)

Applicant .....  
 Project .....  
 Date .....  
 Sheet No ..... of.....

Assets covered by this sheet .....  
 Depreciation method used ..... Depreciation period .....  
 Book value of assets at time of sale .....  
 This sale would occur in the  Project  Base case (check one)

Year	(1)—Sale price	(2)—Tax on gain (or tax saving on loss) from disposal	(3)—Tax credit recapture	(4)—Net cash flow in (out)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Year	(1)—Sale price	(2)—Tax on gain (or tax saving on loss) from disposal	(3)—Tax credit recapture	(4)—Net cash flow in (out)
13.				
14.				
15.				
Totals.				

*Instructions*  
 Use a separate form for each portion of the assets which would receive different tax treatment or be disposed of at different times.  
 Estimate amounts in cols. 1-3 as would be done in reporting to the IRS.  
 Col. 4 equals col. 1 minus col. 2 (plus col. 2 if a tax saving occurs) minus col. 3.

Form III.—Analysis of expenses and contribution to profit (constant dollars)

Applicant .....  
 Project .....  
 Date .....  
 Sheet No ..... of.....  
 Expense or contribution .....  
 Physical units used ..... Monetary value per physical unit .....

Year	Physical units			(4)—Cash difference (in before-tax constant dollars)
	(1)—Project	(2)—Base case	(3)—Difference	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
Totals.				

*Instructions*  
 This form applies to all cashflow impacts except capitalized investments and sales or retirements of assets. Use a separate form for each type of expense or contribution to profit.  
 Col. 3 equals col. 1 minus col. 2.  
 Col. 4 equals col. 3 times monetary value per physical unit.

Federal Railroad Administration, DOT

Pt. 260, App. B

Form IV.—Consolidation of cash flows (constant dollars)

Applicant .....  
 Project .....  
 Date .....  
 Sheet No ..... of.....

Year	Form I totals		Form II totals		Form III		(7)—Net cash flow in (out)
	(1)—Project	(2)—Base case	(3)—Project	(4)—Base case	(5)—Before tax totals	(6)—After tax	
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
Totals.							

*Instructions*

Cols. 1 through 5 are found by summing the right most columns on the indicated forms I-III.  
 Col. 6 equals col. 5 times (1 minus marginal tax rate) unless taxes will be paid in some years but not others.  
 Col. 7 equals col. 1 plus col. 3 plus col. 6 minus col. 2 minus col. 4. The subtracting of a (net cash flow out) results in the addition of a positive number.



Form V.—Computation of IRR (constant dollars)

Applicant .....  
 Project .....  
 Date .....  
 Sheet No ..... of.....

Year	(1)—Cash flow	Present value					
		Factor	(2)—Value at 10 pct	Factor	(3)—Value at 25 pct	Factor	(4)—Value at 40 pct
1 .....		0.909		0.800		0.714	
2 .....		.826		.640		.510	
3 .....		.751		.512		.364	
4 .....		.683		.410		.260	
5 .....		.621		.328		.186	
6 .....		.564		.262		.133	
7 .....		.513		.210		.095	
8 .....		.467		.168		.068	
9 .....		.424		.134		.048	
10 .....		.386		.107		.035	
11 .....		.350		.086		.025	
12 .....		.319		.069		.018	
13 .....		.290		.055		.013	
14 .....		.263		.044		.009	
15 .....		.239		.035		.006	
Total present value of cash flow stream IRR = .....							

Instructions

- Col. 1 is brought from form IV col. 7
- Cols. 2, 3, and 4 are found by multiplying col. 1 each time by the indicated factor.
- Plot totals of cols. 1, 2, 3, and 4 against discount rate used (0, 10, 25, and 40 pct respectively). Applicant must indicate scale on horizontal axis of chart and connect the points in a column (1-4) sequence.
- IRR is the discount rate corresponding to the point at which the graphical presentation intersects the zero present value ordinate."

interpolation chart

