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User's Guide and Documentation of the ONAC Railroad Cash Flow Model

May 28, 1981

RAILROAD CASH FLOW MODEL
Summary

Acronym: CABOOSES
Media/subject: Noise

MODEL OVERVIEW: The Railroad Cash Flow Model estimates the discounted present value of each firm's future cash flow stream. To determine this, the net worth of each railroad firm is subtracted from the present value of future cash flow.

The model was developed by contractor in order to perform the economic analysis for the railroad regulation. The model was implicity developed through contract funding but is not currently available for use on EPA's computer system.

FUNCTIONAL CAPABILITIES: Two versions of the model exist. They support different revisions of proposed railroad regulations.

BASIC ASSUMPTIONS: N/A

COMPUTATIONAL SYSTEM REQUIREMENTS:

Hardware: Mainframe not yet determined
Disc storage not yet determined
Language: FORTRAN

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REFERENCES: Contact Dr. Kurt Askin for references describing the model.

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SECTION I - DESCRIPTION OF THE CASH FLOW MODEL

Introduction

This section describes the cash flow model used in the financial analysis in support of the railroad yard noise standard and conducted for the Background Document. Included in this section is an explanation of the purpose of the modal and the derivation of the equations used in the model. Data inputs are listed and a sample of the output tables is subsequently shown.

Cash Flow Model

The methodology of the cash flow model is that presented in the original EPA Background Document for EPA/ONAC titled "Background Document for Final Rail Carrier Noise Emissions: Source Standards, December 1979." The methodology uses the net present value or discounted cash flow technique to assess the financial impact of noise abatement costs on each of 56 railroads. The net present value (NPV) of each railroad's 20-year (1980 to 1999) stream of cash flow in the absence of noise abatement is compared to the NPV of noise abatement costs plus net investment over the same period of time. Cash flow is defined as the sum of net income after interest and federal income taxes plus depreciation and amortization, and deferred taxes, less the equity in earnings of affiliated companies. Current net investment is defined as net worth, the difference between assets and liabilities. It is composed of capital stock, capital contributions, and retained earnings. Net worth represents that portion of assets or investments which are owned by the company and not by creditors.

Adjusted cash flow is cash flow without depreciation added back into

the calculation. The rationale for computing an adjusted cash flow is to allow for some cash outflow for capital expenditures not related to the noise regulation. It is assumed that depreciation is an approximate measure of capital expenditures that are not related to noise regulations. A further discussion of this assumption is contained in a section below describing the parameters of the model.

The cash flow analysis operates by subtracting the net worth (NW) of each railroad from its discounted present value of future cash flows (DCF). The NW of the firm is the original cost of its net assets. The firm's DCF is equal to the sum of its yearly cash flows discounted by the opportunity cost of capital, that is, the rate of earnings that capital would bring in its next most productive use. DCF is then the present value of the cash that the firm's net assets would generate. The difference between DCF and NW is referred to as the net present value of future cash flows (NPV). When the net present value of abatement costs plus the net worth is greater than or slightly less than cash flow or where abatement costs seem large relative to cash flow, potential financial difficulty for that firm may be present.

The cash flow model computes the NPV before and after the noise regulation in order to determine the magnitude of regulatory burden. In order to provide a common measure to compare the financial health of different sized firms, the NPV of each firm is divided by its own NW. This allows a comparison of firms of different sizes according to their financial condition. Changes in that ratio after regulation provide an indicator of the compliance burden which can be compared across (different sized) firms.

The following broad categories were used to evaluate firms according to their ratio of NPV/NW.

(1) Weak Firms

If the NPV/NW < 0.0, the firm is in very weak financial condition. Noise abatement expenditures will worsen or create a tenuous financial condition

(2) Marginal Firms

If zero is less than NPV/NW, it is less than 0.1 before or after abatement expenditures, the firm may suffer significantly due to the regulation.

(3) Strong Firms

If NPV/NW is greater than 0.1 after the regulation, the firm has a reasonably sound financial structure, and regulation will probably not cause major financial difficulties.

Description of the Present Value Analysis

A number of assumptions are necessary in order to carry out the present value analysis. They include the following:

1. Time horizon for analysis is 20 years beginning January 1st 1980 and ending on December 31st 1999.
2. The annual inflation rate is 6%.
3. The discount rate chosen for present value analysis is 10%.
4. The marginal tax rate is 46% which is the marginal tax rate for corporate income above $100,000 for years beginning after 1978.
5. Pollution abatement equipment is depreciated by the straight line method with a zero salvage value. Equipment is replaced when fully depreciated except for mufflers for switcher engines. Replacement mufflers represents current maintenance expense after the initial muffler is worn out (in accordance with ICC accounting principles).

6. All pollution abatement equipment qualifies for investment tax credit. The tax credit is equal to 10% of capital expenditure. It is assumed that the full investment tax credit will be taken in the year in which equipment is acquired and put into use.

Computations

The computations that are made in the cash flow model are relatively straightforward. The main result of the model, the ratio of NPV to NW for each firm is determined through a series of equations which may be summarized in the following steps.

Step 1 - Cash Flow Determination

The 1973 through 1978 average is used as the first observation in the annual stream beginning in 1980. It is defined as net income after taxes, interest and extraordinary items, plus deferred taxes, less equity of earnings of affiliates. Depreciation is not added back in the baseline cash flow estimates. Cash flow is defined as

$$CF = NI + DEFT - EQ$$

where CF is cash flow, NI is net income, DEFT is deferred taxes, and EQ is equity and earnings or affiliates. For each railroad the cash flow average was inflated by 6% per year to account for inflation, discounted by 10% a year to calculate the present value, and summed to derive the net present value of the 20-year stream of cash flows.

Net worth is calculated as the average over the period 1973 to 1978 and is termed "average net investment."

Step 2 - The net present values of future cash flows are calculated by reducing the present values of future cash flows by average net investment

or net worth. This is done on a railroad by railroad basis and those railroads that display a negative net worth are eliminated from further net present value analysis. However, their abatement cash flow change is calculated.

Step 3 - Capital expenditures detailed by noise source for each railroad are shown in the year in which the expenditure is made. The cost of each treatment that is applicable to each noise source is multiplied by the number of sources. The equipment is replaced when fully depreciated and additional capital expenditures are made. Present values of capital expenditures are computed by inflating the expenditures by 6% a year from 1980 on and discounting back to the present at a 10% discount rate.

Step 4 - Noise related operations and maintenance expenditures, out-of-service, and depreciation costs are computed for each year using the O&M and out-of-service cost estimates for each source, and capital expenditure and useful life data for each fix applicable to each source. The effect of taxes is evaluated in the analysis with before-and after-tax costs being determined. Operation and maintenance expenditures and out of service costs, have an after-tax cost of 1-T, that is 1 minus the tax rate. Depreciation has a tax "shield" in the sense of cash flow equal to tax depreciation expense. These costs are separated by source before and after taxes and are totaled for each railroad. They are presented in 1979 dollars.

Because the abatement cost data are to be used in the cash flow analysis, they must be adjusted for the impact they have on cash flow. Out of service costs, treated as a period cost with the same tax impact as O&M, are included hereafter in the general discussion of O&M costs.

In an abatement scenario, adjusted cash flow is reduced by the additional

O&M costs offset somewhat by the reduction of taxes which arise because of the reduced net income (from the increased O&M costs), that is,

$$\Delta CF_{O\&M} = -\Delta O\&M + T(\Delta O\&M)$$

$$= -\Delta O\&M\ (1-T)$$

where T = tax rate.

In addition, increased depreciation also changes baseline cash flow. Depreciation is a non-cash expense which reduces taxes and thus has a positive effect on cash flow. Initially,

$$\Delta CF_{DEP} = -\Delta DEP + T\ (\Delta DEP)$$

$$= -\Delta DEP\ (1-T)$$

where again, T is the tax rate.

However, a basic premise in cash flow analysis is that flows are considered, not accounting charges and credits. Thus, all non-cash items are added back to after tax net income. Thus,

$$\Delta CF = -\Delta O\&M\ (1-T) + [-\Delta DEP\ (1-T)] + \Delta DEP$$

$$\Delta CF = -\Delta O\&M\ (1-T) - \Delta DEP\ (1-T) + \Delta DEP$$

which reduced,

$$\Delta CF = -\Delta O\&M\ (1-T) + \Delta DEP\ (T)$$

Step 5 - Investment tax credits generated by capital expenditures are treated as an annual item to increase cash flows. Investment tax credits are taken at the full rate of 10% of capital expenditure. They are taken in the year in which the asset is acquired and assumed put in place. It is assumed that there are no limitations on investment tax credits and all equipment is eligible for the full tax credit.

Step 6 - The aggregate change in cash flow is derived by increasing ΔCF by the investment tax credit in those years in which equipment is acquired. The present value is computed for each year by applying the present value factor and summing the stream of incremental cash flows. Thus,

$$\Delta CF = -\Delta O\&M\ (1-T) + \Delta DEP\ (T) + ITC$$

$$PV\,\Delta CF = \sum_{i=1}^{20} PV\ (-\Delta O\&M_i)(1-T) + \Delta\, DEP_i\,(T) + ITC_i$$

where PV = present value and ITC corresponds to the investment tax credit.

Step 7 - The net present value of abatement cash flow is determined by reducing the present value of change in cash flows by the present value of the capital expenditures. Thus,

$$NPVACF = PV\Delta CF - PVCAP$$

$$NPVACF = \sum_{i=1}^{20} [PV\ (-\ \Delta O\&M_i\ (1-T) + \Delta\, DEP_i\ (T) + ITC_i)] -$$

$$\sum_{i=1}^{20} PVCAP_i$$

where NPVACF is net present value of abatement cash flow; PVCAP is present value of capital expenditures and all other variables are defined as above. The net present value of change in abatement cash flows by yard type for each railroad is presented in the analysis.

Step 7 - The net present value of abatement cash flows is subtracted from the net present value of future cash flows, leaving the net present value of future cash flow with abatement. Thus,

$$NPV = NPVFCF - (-NPVACF)$$

$$NPV = NDVFCF + NPVACF$$

where NPVFCF is net present value of future cash flows, NPVACF is net

present value of abatement cash flows.

Step 8 - The net present value of abatement cash flows is compared to the net investment for average net worth. If the net present value is positive, a relatively small potential financial difficulty may be present. With this analysis, relatively small is interpreted to mean a difference which is positive but less than 10% of net worth. For railroads with a positive difference greater than 10%, future analysis is suggested only if abatement costs appear unusually large relative to other data. The ratio is calculated by dividing the net present value of cash flows after abatement by net worth, as explained above.

Data Inputs

The operation of the cash flow model depends upon a number of data files as input. These data files contain all the key inputs and parameters of the model. The parameters are easily accessed through the data files and thus the model is easily updated and changed.

The data includes 6 years, 1973 through 1978 of historical data for the following relevant financial items which are taken from the ICC forms R-1 and R-2, annual reports.

1. Income (from the Income Statement)
    a. Net railway operating incom
    b. Income after fixed charges
    c. Ordinary income (operating income)
    d. Net income (after extraordinary items, accounting changes, and discontinued operations)
2. Depreciation and amortization (from operations)(from the Statement of Changes in Financial Position)
3. Deferred taxes (from the Statement of Changes in Financial Position)

4. Undistributed equity in earnings of affiliated companies (from either the Income Statement or the Statement of Changes in Financial Position)

5. Net worth (from the Comparative Balance Sheet as net shareholder's equity)

The data are contained in the file.RRDATA, in the order listed above for each railroad by alpha code for each of the six yeare. Additionally, datra items representing cash dividends paid and equipment expenditures were collected and are stored for most railroads. However, these items are not used in the current version of the program.

The model was developed to allow flexibility when analyzing various combinations of regulatory assumptions. This is reflected in the parameters specified in the .FACTORS file. When the regulatory scenario assumptions change, a new file is created: for example .FACTORS1, .FACTORS2, etc. These parameters are listed below, then discussed in greater detail:.

1. Inflation Rate
2. Discount Rate
3. Tax Rate (marginal corporate tax rate)
4. Investment tax credit (rate)
5. Option (regulatory option)
6. PVCE Detail RPT (present value of captial expenditures detailed report)
7. DEP EXP Detail (depreciation expense detail)
8. Number of Fixes
9. Income Usage
10. Number Years
11. FACTOR1
12. FACTOR2
13. FACTOR3

1. Inflation Rate is that rate assumed to affect railroad costs and revenues. It is incorporated into the model in the discounting process. The inflation rate is used to compute the future value. Only cash flows are adjusted for inflation. The rate chosen is 6%.

2. Discount Rate is that rate used to compute the present value from the future value. The discount rate is not itself adjusted for risk or inflation. The rate chosen is 10%.

3. Tax Rate, as used here, is the current marginal corporate rate (46%). This can be changed to reflect effective rates.

4. Investment TCR (investment tax credit rate) is applied to all capital expenditures imposed by the regulation. The full investment credit is assumed to apply; that is, the program would not adjust depreciable lives less than seven years in the tax credit. The tax credit is treated as an inflow.

5. Option serves two purposes.

By labelling each report on each page of printout, the option number can be specified to be the .FACTORS file number so as to produce results easily identifiable with the data file and regulatory assumptions. In the final version, option $\pm$ 11 indicates only residential receiving line impacts. Option $\pm$ 12 indicates residential and commercial receiving line impacts.

An option number greater than zero specifies that depreciation will be considered as a non-cash expenditure and thus added back in the standard cash flow equation. An option number less than zero specifies that depreciation will not be added back in the cash flow equation. The rationale for developing this "non-standard" flexibility rests on the assumption that nonregulatory recurring capital equipment outlays will approximate annual depreciation charges.

6. The PVCE detail report will be printed for each railroad when the number specified in the .FACTORS file is not zero. These detailed reports will not be printed when zero is specified.

7. Similarly, the depreciation expense detail report can be printed or not printed with the specification of a number not zero or zero, respectively.

8. Number of Fixes is the maximum number of separately cost identifiable technology fixes for any noise source to comply with the regulation. It is the sum of separate technologies for a noise source for all stages of the regulation. The first three fixes are Phase 1 technologies and costs, and the last three are Phase 2.

9. By stating the income usage in the .FACTORS file, the appropriate net income is specified which is taken into the cash flow computation. The income usage numbers can be any of the following: 1, for net railway operating income; 2, for income after fixed charges; 3, for ordinary income; and 4, for net income. These data are included in the historical data base and further explanation is given in that section.

10. Number of years specifies the number of years of historical data which will be taken to compute the average. The average is then used as the baseline (1979) financial items taken in the net present value model.

11. FACTOR1 is the estimated percentage of total identifiable retarders impacted by the regulatory option (i.e., noise sources at residential receiving lines only or noise sources at residential and commerical receiving lines).

12. FACTOR2 is the estimated percentage of total identifiable load cell test sites impacted by the option.

13. FACTOR3 is the estimated percentage of total identifiable switcher engines impacted by the option.

The FACTORS file also contains the following input data for each noise source.

Capital expense per unit by fix in the year prior to the date of compliance is replaced where applicable. The cost estimate is given in thousands of dollars.

Annual operating and maintenance cost per unit associated with the technology fix for which equipment is required for compliance. Operating and maintenace costs are claimed through the depreciable life of the equipment. Data are entered in thousands of dollars.

Out-of-service cost per unit is entered where applicable for the noise source and year in which it occurs. This "opportunity" cost is expressed in thousands of dollars.

For all the above, it is necessary that the data file contain a zero value when, in any given year, there is no cost associated with the fix for that noise source. Because switcher engine compliance technology is assumed to be phased in over a four-year period (1980 to 1983) a phase-in factor was developed to spread cost for the total identified number of units impacted by the regulation over the phase-in period. Once the equipment is brought into service, it incurs operating and maintenance costs and could incur out-of-service cost. As a result, phase-in factors are entered for each noise source.

Capital expeditures phase-in factors appear for each applicable fix (for which the cost was previously entered) as the percentage of total units impacted for a specific year.

Operating and maintenance phase-in factors reflect the percentage of new units and their fixes brought into service in a year, in addition to those units and their fixes brought into service prior to that year. This factor is cumulative. Further, if replacement of original equipment is considered, a current or operating and maintenace cost and the original equipment was phased in, this schedule must repeat for each life cycle.

Out-of-service costs, although not occurring on a phased schedule in the current model, can be phased-in. The appropriate factor would be entered in what is now an ineffective file (that is, all phase-in factors for each noise source's out-of-service phase-in factor is 1).

Each phase-in factor file is treated similar to the cost estimate file in that some value must be entered for each source's fix for each year. Where no phasing-in occurs, the factor is unity.

Model Outputs

The cash flow model produces several distinct sets of results. In addition to calculating the net present values, summary reports are printed which contain the following information for each railroad and the total of all observed railroads.

1. railroad name and number and type is noise source (Table 2)
2. present value factors (Table 4)
3. present value of future cash flows (Table 5),
4. average net investment (average net worth) (Table 5),
5. net present value of future cash flows (Table 5),
6. abatement capital expenditures with replacement (current dollars) (Table 6),
7. present value of abatement capital expenditures with replacement
8. (Tables 7),
9. initial capital expenditures (current dollars)(Table 8),
10. O&M costs before and after taxes (current dollars)(Table 9),
11. out-of-service costs before and after taxes (current dollars) (Table 10),
12. depreciation expense before and after taxes (current dollars)(Table 11),
13. investment tax credit (current dollars)(Table 12), and
14. present value of incremental abatement cash flows and resulting net present values with abatement (Table 13).

Summary tables are also printed which identify the following:

1. railroads with a positive NPV (Table 14),
2. railroads with a negative or zero NPV (Table 15),
3. railroads with 0<NPV/NW<0.1 (Table 16)
4. railroads with NPV/NW>0.1 (Table 17)
5. railroads with NPV/NW<0.0 (Table 18)
6. railroads with a positive baseline future cash flow (Table 19),
7. railroads with a negative baseline future cash flow (Table 20),
8. railroads with positive average net investment (net worth)(Table 21),
9. railroads with negative average net investment (net worth)(Table 22),
10. railroads with positive NPU of future cash flows before abatement (Table 23),
11. railroads with negative NPU of future cash flows before abatement (Table 24),
12. railroads and equipment for each flow analysis (Table 25)

The resulting set of tables are included for illustration purposes only to show the degree of detail produced by the model.

Table 2

CASH FLOW ANALYSIS BASED ON ONAC SOUND
EMISSION STANDARDS MODEL (CABOOSES)

			NOISE SOURCE		
	RAILROAD NAME		RETARDERS	LOAD CELL TEST SITES	SWITCHERS
1	BO	BALTIMORE & OHIO RR CO.	5	0	83
2	BAP	BANGOR & AROOSTOOK RR CO.	0	0	2
3	BLE	BESSEMER & LAKE ERIE RR CO.	0	1	0
4	BM	BOSTON & MAINE CORP.	1	1	38
5	CP	CANADIAN PACIFIC (IN MAINE)	0	0	1
6	CV	CENTRAL VERMONT RWY CO.	0	0	1
7	CO	CHESAPEAKE & OHIO RWY CO.	4	11	64
8	CIM	CHICAGO & ILLINOIS MIDLAND RWY CO.	0	0	4
9	CR	CONRAIL	23	14	1255
10	DH	DELAWARE & HUDSON RWY CO.	0	1	35
11	DTS	DETROIT & TOLEDO SHORELINE RR CO.	1	0	0
12	DTI	DETROIT, TOLEDO & IRONTON RR CO.	1	0	13
13	EJE	ELGIN, JOLIET & EASTERN RWY CO.	1	2	54
14	GTW	GRAND TRUNK WESTERN RR CO.	0	1	64
15	ITC	ILLINOIS TERMINAL RR CO.	0	1	1
16	LI	LONG ISLAND RR CO.	1	1	10
17	MEC	MAINE CENTRAL RR CO.	0	2	14
18	NW	NORFOLK & WESTERN RWY CO.	5	7	222
19	PLE	PITTSBURGH & LAKE ERIE RR CO.	0	1	47
20	RFP	RICHMOND, FREDERICKSBURG & POTOMAC RR CO	1	0	10
21	WM	WESTERN MARYLAND RWY CO.	1	0	0
22	CCO	CLINCHFIELD RR CO.	0	1	5
23	FEC	FLORIDA EAST COAST RWY CO.	0	1	9
24	GA	GEORGIA RR CO.	0	0	5
25	ICG	ILLINOIS CENTRAL GULF RR CO.	3	7	116
26	LN	LOUISVILLE & NASHVILLE RR CO.	3	2	107
27	SCL	SEABOARD COAST LINE RR CO.	2	5	112
28	SOU	SOUTHERN RY. SYSTEM	6	2	138
29	ATSF	ATCHISON, TOPEKA & SANTA FE RWY CO.	3	5	95
30	BN	BURLINGTON NORTHERN CO.	7	13	376
31	CNW	CHICAGO & NORTHWESTERN TRANSP. CO.	1	7	99
32	MILW	CHICAGO, MILW., ST. PAUL & PACIFIC RR CO	2	10	141
33	RI	CHICAGO, ROCK ISLAND & PACIFIC RR CO.	1	5	107
34	CS	COLORADO & SOUTHERN RWY CO.	0	0	9
35	DRGW	DENVER & RIO GRANDE WESTERN RR CO.	1	1	28
36	DMIR	DULUTH, MISSABE & IRON RANGE RWY CO.	0	1	10
37	DWP	DULUTH, WINNIPEG & PACIFIC RWY	0	0	0
38	FWD	FORT WORTH & DENVER RWY CO.	0	1	4
39	KCS	KANSAS CITY SOUTHERN RWY CO.	0	2	66
40	MKT	MISSOURI-KANSAS-TEXAS RR CO.	0	1	35
41	MP	MISSOURI PACIFIC RR CO.	2	4	240
42	NWP	NORTHWESTERN PACIFIC RR CO.	0	0	7
43	SLSF	ST. LOUIS-SAN FRANCISCO RWY CO.	1	1	67
44	SSW	ST. LOUIS SOUTHWESTERN RWY CO.	1	0	50
45	SOO	SOO LINE RR CO.	0	2	33
46	SP	SOUTHERN PACIFIC CO.	6	15	386
47	TM	TEXAS MEXICAN RWY CO.	0	0	0
48	TPW	TOLEDO, PEORIA & WESTERN RR CO	0	1	0
49	UP	UNION PACIFIC RR CO.	3	3	170
50	WP	WESTERN PACIFIC RR CO.	0	1	7
51	ALS	ALTON & SOUTHERN RR	1	0	15
52	BRC	BELT RR CO. OF CHICAGO	1	0	35
53	IHB	INDIANA HARBOR BELT RR CO.	2	1	77
54	TRRA	TERMINAL RR ASSN. OF ST. LOUIS	1	1	45
55	URR	UNION RR CO.	1	0	21
56	YS	YOUNGSTOWN & SOUTHERN RWY CO.	1	0	0
TOTAL			93	140	4601

Table 4

PRESENT VALUE FACTORS

INFLATION FACTOR= 6%
DISCOUNT FACTOR = 10%

1979	1.000000
1980	0.963636
1981	0.928595
1982	0.894828
1983	0.862289
1984	0.830933
1985	0.800717
1986	0.771600
1987	0.743541
1988	0.716504
1989	0.690449
1990	0.665342
1991	0.641147
1992	0.617833
1993	0.595366
1994	0.573716
1995	0.552854
1996	0.532750
1997	0.513377
1998	0.494709
1999	0.476720

PRESENT VALUE FOR A TWENTY YEAR ANNUITY= 13.866940

Table 5

CASH FLOW SUMMARY BEFORE ABATEMENT PRESENT VALUE
AT JANUARY 1, 1980 (DOLLARS IN THOUSANDS)

RAILROAD	PRESENT VALUE OF FUTURE CASH FLOWS	AVERAGE NET INVESTMENT	NET PRESENT VALUE FUTURE CASH FLOWS
BALTIMORE & OHIO RR CO.	643733.	609953.	-466219.*
BANGOR & AROOSTOOK RR CO.	8608.	37523.	-28715.*
BESSEMER & LAKE ERIE RR CO.	177622.	92004.	84818.
BOSTON & MAINE CORP.	-29635.*	56997.	-142002.*
CANADIAN PACIFIC (IN MAINE)	0.*	2256.	-2256.*
CENTRAL VERMONT RWY CO.	9226.	-9142.*	N/A
CHESAPEAKE & OHIO RWY CO.	613268.	650872.	-37784.*
CHICAGO & ILLINOIS MIDLAND RWY CO.	22490.	10354.	9136.
CONRAIL	-8082216.*	-73919.*	N/A
DELAWARE & HUDSON RWY CO.	-61525.*	37313.	-98838.*
DETROIT & TOLEDO SHORELINE RR CO.	11775.	11301.	475.
DETROIT, TOLEDO & IRONTON RR CO.	-22015.*	50863.	-73778.*
ELGIN, JOLIET & EASTERN RWY CO.	183573.	78217.	109356.
GRAND TRUNK WESTERN RR CO.	-83614.*	-115581.*	N/A
ILLINOIS TERMINAL RR CO.	3610.	11815.	-8205.*
LONG ISLAND RR CO.	-1404098.*	114901.	-1518995.*
MAINE CENTRAL RR CO.	24988.	40436.	-15448.*
NORFOLK & WESTERN RWY CO.	1646700.	1100372.	546328.
PITTSBURGH & LAKE ERIE RR CO.	311525.	372453.	-60928.*
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	125424.	77347.	52077.
WESTERN MARYLAND RWY CO.	74935.	86034.	-11099.*
CLINCHFIELD RR CO.	0.*	0.*	N/A
FLORIDA EAST COAST RWY CO.	114210.	93370.	20832.
GEORGIA RR CO.	0.*	0.*	N/A
ILLINOIS CENTRAL GULF RR CO.	211094.	680395.	-476501.*
LOUISVILLE & NASHVILLE RR CO.	280082.	530529.	-250446.*
SEABOARD COAST LINE RR CO.	832553.	1102373.	-270020.*
SOUTHERN RY. SYSTEM	1253229.	996151.	257514.
ATCHISON, TOPEKA & SANTA FE RWY CO.	1132298.	1364400.	-232102.*
BURLINGTON NORTHERN CO.	511217.	1751140.	-839923.*
CHICAGO & NORTHWESTERN TRANSP. CO.	-52165.*	21330.	-73495.*
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	-355563.*	297168.	-652735.*
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	-349808.*	156030.	-505838.*
COLORADO & SOUTHERN RWY CO.	27766.	72626.	-44860.*
DENVER & RIO GRANDE WESTERN RR CO.	277075.	190502.	70574.
DULUTH, MISSABE & IRON RANGE RWY CO.	97920.	90448.	7401.
DULUTH, WINNIPEG & PACIFIC RWY	77035.	15028.	61207.
FORT WORTH & DENVER RWY CO.	14914.	33648.	-18734.*
KANSAS CITY SOUTHERN RWY CO.	92511.	124139.	-31628.*
MISSOURI-KANSAS-TEXAS RR CO.	-63807.*	-24145.*	N/A
MISSOURI PACIFIC RR CO.	982706.	524344.	458362.
NORTHWESTERN PACIFIC RR CO.	-22343.*	-20098.*	N/A
ST. LOUIS-SAN FRANCISCO RWY CO.	203641.	214026.	-10385.*
ST. LOUIS SOUTHWESTERN RWY CO.	564779.	297476.	267303.
SOO LINE RR CO.	264059.	161966.	102093.
SOUTHERN PACIFIC CO.	1069274.	1507045.	-438771.*
TEXAS MEXICAN RWY CO.	13429.	4004.	9395.
TOLEDO, PEORIA & WESTERN RR CO.	4151.	9913.	-5762.*
UNION PACIFIC RR CO.	1779736.	4514674.	-734938.*
WESTERN PACIFIC RR CO.	-214293.*	108396.	-322689.*
ALTON & SOUTHERN RR	33260.	20260.	13000.
BELT RR CO. OF CHICAGO	592.	5972.	-5380.*
INDIANA HARBOR BELT RR CO.	-5140.*	14920.	-20060.*
TERMINAL RR ASSN. OF ST. LOUIS	-37249.*	1030.	-38279.*
UNION RR CO.	57611.	47036.	9907.
YOUNGSTOWN & SOUTHERN RWY CO.	-1095187.*	-14804.*	N/A
TOTAL	2047214.	16038271.	-4950757.

* = VALUE LESS THAN OR EQUAL TO ZERO

Table 6

CAPITAL EXPENDITURE SUMMARY (1979 DOLLARS)
(DOLLARS IN THOUSANDS(REPLACEMENT ASSUMPTION APPLIED

RAILROAD NAME	NOISE SOURCE			
	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	1947.	0.	642.	2589.
BANGOR & AROOSTOOK RR CO.	0.	0.	16.	16.
BESSEMER & LAKE ERIE RR CO.	0.	103.	0.	103.
BOSTON & MAINE CORP.	309.	103.	391.	873.
CANADIAN PACIFIC (IN MAINE)	0.	0.	0.	0.
CENTRAL VERMONT RWY CO.	0.	0.	0.	0.
CHESAPEAKE & OHIO RWY CO.	1550.	2013.	507.	4077.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	32.	32.
CONRAIL	8957.	2561.	9940.	21458.
DELAWARE & HUDSON RWY CO.	0.	103.	198.	301.
DETROIT & TOLEDO SHORELINE RR CO.	389.	0.	0.	389.
DETROIT, TOLEDO & IRONTON RR CO.	389.	0.	103.	492.
ELGIN, JOLIET & EASTERN RWY CO.	389.	366.	420.	1183.
GRAND TRUNK WESTERN RR CO.	0.	193.	507.	690.
ILLINOIS TERMINAL RR CO.	0.	103.	0.	191.
LONG ISLAND RR CO.	309.	103.	79.	652.
MAINE CENTRAL RR CO.	0.	366.	111.	477.
NORFOLK & WESTERN RWY CO.	1947.	1201.	1758.	4906.
PITTSBURGH & LAKE ERIE RR CO.	0.	193.	372.	555.
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	389.	0.	79.	469.
WESTERN MARYLAND RWY CO.	389.	0.	0.	389.
CLINCHFIELD RR CO.	0.	103.	71.	254.
FLORIDA EAST COAST RWY CO.	0.	103.	71.	254.
GEORGIA RR CO.	0.	0.	40.	40.
ILLINOIS CENTRAL GULF RR CO.	1168.	1201.	919.	3360.
LOUISVILLE & NASHVILLE RR CO.	1160.	366.	847.	2302.
SEABOARD COAST LINE RR CO.	779.	915.	807.	2501.
SOUTHERN RY. SYSTEM	2337.	366.	1093.	3795.
ATCHISON, TOPEKA & SANTA FE RWY CO.	1160.	915.	752.	2835.
BURLINGTON NORTHERN CO.	2726.	2379.	2978.	8082.
CHICAGO & NORTHWESTERN TRANSP. CO.	309.	1281.	704.	2454.
CHICAGO, MIN., ST. PAUL & PACIFIC RR CO.	779.	2561.	1117.	4457.
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	389.	915.	847.	2152.
COLORADO & SOUTHERN RWY CO.	0.	0.	71.	71.
DENVER & RIO GRANDE WESTERN RR CO.	389.	193.	222.	794.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	183.	143.	326.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	103.	32.	215.
KANSAS CITY SOUTHERN RWY CO.	0.	366.	523.	889.
MISSOURI-KANSAS-TEXAS RR CO.	0.	183.	277.	460.
MISSOURI PACIFIC RR CO.	779.	732.	1901.	3411.
NORTHWESTERN PACIFIC RR CO.	0.	0.	55.	55.
ST. LOUIS-SAN FRANCISCO RWY CO.	309.	183.	531.	1303.
ST. LOUIS SOUTHWESTERN RWY CO.	389.	0.	396.	785.
SCO LINE RR CO.	0.	366.	261.	627.
SOUTHERN PACIFIC CO.	2337.	2744.	3841.	8922.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	103.	0.	103.
UNION PACIFIC RR CO.	1168.	549.	1346.	3064.
WESTERN PACIFIC RR CO.	0.	103.	55.	230.
ALTON & SOUTHERN RR	389.	0.	119.	508.
BELT RR CO. OF CHICAGO	389.	0.	277.	667.
INDIANA HARBOR BELT RR CO.	779.	183.	610.	1572.
TERMINAL RR ASSN. OF ST. LOUIS	389.	183.	356.	929.
UNION RR CO.	389.	0.	721.	1110.
YOUNGSTOWN & SOUTHERN RWY CO.	389.	0.	0.	389.
TOTAL	36216.	25615.	36440.	98270.

Table 7

PRESENT VALUE OF CAPITAL EXPENDITURE SUMMARY AT JANUARY 1, 1980
(DOLLARS IN THOUSANDS) REPLACEMENT ASSUMPTION APPLIED

	NOISE SOURCE			
RAILROAD NAME	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	1624.	0.	574.	2199.
BANGOR & AROOSTOOK RR CO.	0.	0.	14.	14.
BESSEMER & LAKE ERIE RR CO.	0.	135.	0.	135.
BOSTON & MAINE CORP.	325.	135.	269.	729.
CANADIAN PACIFIC (ZU MAINE)	0.	0.	7.	7.
CENTRAL VERMONT RY CO.	0.	0.	7.	7.
CHESAPEAKE & OHIO RWY CO.	1300.	1404.	456.	3230.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	20.	20.
CONRAIL	7473.	1009.	8994.	18256.
DELAWARE & HUDSON RWY CO.	0.	135.	177.	312.
DETROIT & TOLEDO SHORELINE RR CO.	325.	0.	0.	325.
DETROIT, TOLEDO & IRONTON RR CO.	325.	0.	92.	417.
ELGIN, JOLIET & EASTERN RWY CO.	325.	270.	383.	978.
GRAND TRUNK WESTERN RR CO.	0.	135.	454.	589.
ILLINOIS TERMINAL RR CO.	0.	135.	7.	142.
LONG ISLAND RR CO.	325.	135.	71.	531.
MAINE CENTRAL RR CO.	0.	270.	99.	369.
NORFOLK & WESTERN RWY CO.	1624.	945.	1573.	4142.
PITTSBURGH & LAKE ERIE RR CO.	0.	135.	333.	468.
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	325.	0.	71.	396.
WESTERN MARYLAND RWY CO.	325.	0.	0.	325.
CLINCHFIELD RR CO.	0.	135.	64.	199.
FLORIDA EAST COAST RWY CO.	0.	135.	64.	199.
GEORGIA RR CO.	0.	0.	35.	35.
ILLINOIS CENTRAL GULF RR CO.	975.	945.	822.	2741.
LOUISVILLE & NASHVILLE RR CO.	975.	270.	758.	2003.
SEABOARD COAST LINE RR CO.	650.	675.	794.	2119.
SOUTHERN RY. SYSTEM	1949.	270.	978.	3197.
ATCHISON, TOPEKA & SANTA FE RWY CO.	975.	675.	673.	2323.
BURLINGTON NORTHERN CO.	2274.	1754.	2665.	6693.
CHICAGO & NORTHWESTERN TRANSP. CO.	325.	945.	702.	1971.
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	650.	1889.	999.	3538.
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	325.	675.	750.	1750.
COLORADO & SOUTHERN RWY CO.	0.	0.	68.	68.
DENVER & RIO GRANDE WESTERN RR CO.	325.	135.	190.	650.
DULUTH, MISSABE & IRON RANGE RWY CO	0.	135.	428.	563.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	135.	28.	163.
KANSAS CITY SOUTHERN RWY CO.	0.	270.	468.	738.
MISSOURI-KANSAS-TEXAS RR CO.	0.	135.	248.	383.
MISSOURI PACIFIC RR CO.	650.	540.	1701.	2890.
NORTHWESTERN PACIFIC RR CO.	0.	0.	50.	50.
ST. LOUIS-SAN FRANCISCO RWY CO.	325.	135.	475.	935.
ST. LOUIS SOUTHWESTERN RWY CO.	325.	0.	254.	579.
SOO LINE RR CO.	0.	270.	234.	504.
SOUTHERN PACIFIC CO.	1949.	2024.	2721.	6695.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	135.	0.	135.
UNION PACIFIC RR CO.	975.	405.	1205.	2584.
WESTERN PACIFIC RR CO.	0.	135.	50.	185.
ALTON & SOUTHERN RR	325.	0.	106.	431.
BELT RR CO. OF CHICAGO	325.	0.	248.	573.
INDIANA HARBOR BELT RR CO.	650.	135.	546.	1330.
TERMINAL RR ASSN. OF ST. LOUIS	325.	135.	319	779.
UNION RR CO.	325.	0.	645.	970.
YOUNGSTOWN & SOUTHERN RWY CO.	325.	0.	0.	325.
TOTAL	30216.	18898.	32607.	81716.

Table 8

INITIAL CAPITAL EXPENDITURE SUMMARY
(DOLLARS IN THOUSANDS)

RAILROAD NAME	NOISE SOURCE: RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	1743.	0.	642.	2385.
BANGOR & AROOSTOOK RR CO.	0.	0.	16.	16.
BESSEMER & LAKE ERIE RR CO.	0.	98.	0.	98.
BOSTON & MAINE CORP.	349.	98.	301.	747.
CANADIAN PACIFIC (IN MAINE)	0.	0.	0.	0.
CENTRAL VERMONT RWY CO.	0.	0.	0.	0.
CHESAPEAKE & OHIO RWY CO.	1394.	1073.	507.	2974.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	32.	32.
CONRAIL	8010.	1365.	9940.	19422.
DELAWARE & HUDSON RWY CO.	0.	98.	198.	295.
DETROIT & TOLEDO SHORELINE RR CO.	349.	0.	0.	349.
DETROIT, TOLEDO & IRONTON RR CO.	349.	0.	103.	452.
ELGIN, JOLIET & EASTERN RWY CO.	349.	195.	428.	971.
GRAND TRUNK WESTERN RR CO.	0.	98.	507.	604.
ILLINOIS TERMINAL RR CO.	0.	98.	0.	105.
LONG ISLAND RR CO.	349.	98.	79.	525.
MAINE CENTRAL RR CO.	0.	195.	111.	306.
NORFOLK & WESTERN RWY CO.	1743.	683.	1758.	4184.
PITTSBURGH & LAKE ERIE RR CO.	0.	98.	372.	470.
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	349.	0.	79.	428.
WESTERN MARYLAND RWY CO.	349.	0.	0.	349.
CLINCHFIELD RR CO.	0.	98.	71.	169.
FLORIDA EAST COAST RWY CO.	0.	98.	71.	169.
GEORGIA RR CO.	0.	0.	80.	80.
ILLINOIS CENTRAL GULF RR CO.	1046.	683.	919.	2647.
LOUISVILLE & NASHVILLE RR CO.	1046.	195.	807.	2048.
SEABOARD COAST LINE RR CO.	697.	488.	887.	2072.
SOUTHERN PT. SYSTEM	2092.	195.	1093.	3380.
ATCHISON, TOPEKA & SANTA FE RWY CO.	1046.	488.	752.	2286.
BURLINGTON NORTHERN CO.	2440.	1268.	2978.	6686.
CHICAGO & NORTHWESTERN TRANSP. CO.	349.	683.	784.	1815.
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	697.	1365.	1117.	3179.
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	349.	488.	647.	1484.
COLORADO & SOUTHERN RWY CO.	0.	0.	71.	71.
DENVER & RIO GRANDE WESTERN RR CO.	349.	98.	232.	680.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	98.	143.	240.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	98.	32.	129.
KANSAS CITY SOUTHERN RWY CO.	0.	195.	523.	718.
MISSOURI-KANSAS-TEXAS RR CO.	0.	98.	277.	375.
MISSOURI PACIFIC RR CO.	697.	390.	1901.	2988.
NORTHWESTERN PACIFIC RR CO.	0.	0.	55.	55.
ST. LOUIS-SAN FRANCISCO RWY CO.	349.	98.	531.	977.
ST. LOUIS SOUTHWESTERN RWY CO.	349.	0.	396.	745.
SOO LINE RR CO.	91	195.	261.	456.
SOUTHERN PACIFIC CO.	2092.	1463.	3041.	6595.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	98.	0.	98.
UNION PACIFIC RR CO.	1046.	293.	1346.	2685.
WESTERN PACIFIC RR CO.	0.	98.	55.	153.
ALTON & SOUTHERN RR	349.	0.	119.	467.
BELT RR CO. OF CHICAGO	349.	0.	277.	626.
INDIANA HARBOR BELT RR CO.	697.	98.	610.	1405.
TERMINAL RR ASSN. OF ST. LOUIS	349.	98.	356.	802.
UNION RR CO.	349.	0.	721.	1069.
YOUNGSTOWN & SOUTHERN RWY CO.	349.	0.	0.	349.
TOTAL	32420.	13650.	36440.	82509.

Table 9

OPERATIONS & MAINTENANCE COST SUMMARY (1979 DOLLARS)
(DOLLARS IN THOUSANDS)

	BEFORE TAX				AFTER TAX			
	NOISE SOURCE				NOISE SOURCE			
RAILROAD	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	820.	0.	3753.	4572.	483.	0.	2026.	2469.
BANGOR & AROOSTOOK RR CO.	0.	0.	93.	93.	0.	0.	50.	50.
BESSEMER & LAKE ERIE RR CO.	0.	124.	0.	124.	0.	67.	0.	67.
BOSTON & MAINE CORP.	164.	124.	1760.	2049.	89.	67.	951.	1106.
CANADIAN PACIFIC (IN MAINE)	0.	0.	46.	46.	0.	0.	25.	25.
CENTRAL VERMONT RWY CO.	0.	0.	46.	46.	0.	0.	25.	25.
CHESAPEAKE & OHIO RWY CO.	656.	1367.	2965.	4988.	354.	738.	1601.	2694.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	185.	185.	0.	0.	100.	100.
CONRAIL	3771.	1740.	58192.	63659.	2036.	940.	31397.	34373.
DELAWARE & HUDSON RWY CO.	0.	124.	1158.	1283.	0.	67.	625.	693.
DETROIT & TOLEDO SHORELINE RR CO.	164.	0.	0.	164.	89.	0.	0.	89.
DETROIT, TOLEDO & IRONTON RR CO.	164.	0.	602.	766.	89.	0.	325.	414.
ELGIN, JOLIET & EASTERN RWY CO.	164.	249.	2502.	2914.	89.	134.	1351.	1574.
GRAND TRUNK WESTERN RR CO.	0.	124.	2965.	3089.	0.	67.	1601.	1668.
ILLINOIS TERMINAL RR CO.	0.	124.	46.	171.	0.	67.	25.	92.
LONG ISLAND RR CO.	164.	124.	463.	752.	89.	67.	250.	406.
MAINE CENTRAL RR CO.	0.	249.	849.	897.	0.	134.	350.	484.
NORFOLK & WESTERN RWY CO.	820.	870.	10285.	11975.	443.	470.	5558.	6466.
PITTSBURGH & LAKE ERIE RR CO.	0.	124.	2177.	2302.	0.	67.	1176.	1243.
RICHMOND, FREDERICKSBURG & POTOMAC R	164.	0.	463.	627.	89.	0.	250.	339.
WESTERN MARYLAND RWY CO.	164.	0.	0.	164.	89.	0.	0.	89.
CLINCHFIELD RR CO.	0.	124.	617.	541.	0.	67.	225.	292.
FLORIDA EAST COAST RWY CO.	0.	124.	417.	541.	0.	67.	225.	292.
GEORGIA RR CO.	0.	0.	232.	232.	0.	0.	125.	125.
ILLINOIS CENTRAL GULF RR CO.	492.	870.	5374.	6736.	266.	470.	2902.	3638.
LOUISVILLE & NASHVILLE RR CO.	492.	249.	4957.	5698.	266.	134.	2677.	3077.
SEABOARD COAST LINE RR CO.	328.	622.	5189.	6138.	177.	336.	2802.	3315.
SOUTHERN RY. SYSTEM	984.	249.	6393.	7626.	531.	134.	3452.	4118.
ATCHISON, TOPEKA & SANTA FE RWY CO.	492.	622.	4901.	5515.	266.	336.	2377.	2978.
BURLINGTON NORTHERN CO.	1640.	1616.	17620.	20103.	620.	873.	9407.	10899.
CHICAGO & NORTHWESTERN TRANSP. CO.	164.	870.	4587.	5621.	89.	470.	2477.	3035.
CHICAGO, MILW., ST. PAUL & PACIFIC R	328.	1740.	6532.	8601.	177.	940.	3527.	4644.
CHICAGO, ROCK ISLAND & PACIFIC RR CO	164.	622.	4957.	5743.	89.	336.	2677.	3101.
COLORADO & SOUTHERN RWY CO.	0.	0.	417.	417.	0.	0.	225.	225.
DENVER & RIO GRANDE WESTERN RR CO.	164.	124.	1297.	1585.	89.	67.	700.	856.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	124.	834.	958.	0.	67.	450.	517.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	124.	185.	310.	0.	67.	100.	167.
KANSAS CITY SOUTHERN RWY CO.	0.	249.	3056.	3306.	0.	134.	1651.	1785.
MISSOURI-KANSAS-TEXAS RR CO.	0.	124.	1622.	1746.	0.	67.	876.	943.
MISSOURI PACIFIC RR CO.	328.	897.	11119.	11944.	177.	240.	6004.	6450.
NORTHWESTERN PACIFIC RR CO.	0.	0.	324.	324.	0.	0.	175.	175.
ST. LOUIS-SAN FRANCISCO RWY CO.	164.	124.	3104.	3392.	89.	67.	1676.	1832.
ST. LOUIS SOUTHWESTERN RWY CO.	164.	0.	2316.	2480.	89.	0.	1251.	1339.
SOO LINE RR CO.	0.	249.	1529.	1777.	0.	134.	826.	960.
SOUTHERN PACIFIC CO.	984.	1865.	17790.	20639.	531.	1007.	9607.	11145.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	124.	0.	124.	0.	67.	0.	67.
UNION PACIFIC RR CO.	492.	373.	7076.	8741.	266.	201.	4253.	4720.
WESTERN PACIFIC RR CO.	0.	124.	324.	449.	0.	67.	175.	242.
ALTON & SOUTHERN RR	164.	0.	695.	859.	89.	0.	375.	464.
BELT RR CO. OF CHICAGO	164.	0.	1622.	1785.	89.	0.	876.	964.
INDIANA HARBOR BELT RR CO.	328.	124.	3567.	4020.	177.	67.	1926.	2171.
TERMINAL RR ASSN. OF ST. LOUIS	164.	124.	2085.	2373.	89.	67.	1126.	1281.
UNION RR CO.	164.	0.	4216.	4380.	89.	0.	2277.	2365.
YOUNGSTOWN & SOUTHERN RWY CO.	164.	0.	0.	164.	89.	0.	0.	89.
TOTAL	15249.	17802.	213157.	245808.	8234.	9597.	115105.	132736.

Table 10

OUT OF SERVICE COST SUMMARY (1979 DOLLARS)
(DOLLARS IN THOUSANDS)

	BEFORE TAX				AFTER TAX			
	NOISE SOURCE				NOISE SOURCE			
RAILROAD	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RF CO.	485.	0.	227.	712.	262.	0.	122.	384.
BANGOR & AROOSTOOK RR CO.	0.	0.	6.	6.	0.	0.	3.	3.
BESSEMER & LAKE ERIE RR CO.	0.	0.	0.	0.	0.	0.	0.	0.
BOSTON & MAINE CORP.	97.	0.	106.	203.	52.	0.	57.	110.
CANADIAN PACIFIC (IN MAINE)	0.	0	3.	3.	0.	0.	2.	2.
CENTRAL VERMONT RWY CO.	0.	0.	3.	3.	0.	0.	2.	2.
CHESAPEAKE & OHIO RWY CO.	388.	0	179.	567.	210.	0.	97.	306.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0	11.	11.	0.	0.	6.	6.
CONRAIL	2231.	0.	3514.	5745.	1205.	0.	1898.	3102.
DELAWARE & HUDSON RWY CO.	0.	0.	70.	70.	0.	0.	38.	38.
DETROIT & TOLEDO SHORELINE RR CO.	97.	0.	0.	97.	52.	0.	0.	52.
DETROIT, TOLEDO & IRONTON RR CO.	97.	0.	36.	133.	52.	0.	20.	72.
ELGIN, JOLIET & EASTERN RWY CO.	97.	0.	151.	248.	52.	0.	82.	134.
GRAND TRUNK WESTERN RR CO.	0.	0.	179.	179.	0.	0.	97.	97.
ILLINOIS TERMINAL RR CO.	0.	0.	3.	3.	0.	0.	2.	2.
LONG ISLAND RR CO.	97.	0.	28.	125.	52.	0.	15.	67.
MAINE CENTRAL RR CO.	0.	0.	39.	39.	0.	0.	21.	21.
NORFOLK & WESTERN RWY CO.	485.	0.	622.	1107.	262.	0.	336.	598.
PITTSBURGH & LAKE ERIE RR CO.	0.	0.	132.	132.	0.	0.	71.	71.
RICHMOND, FREDERICKSBURG & POTOMAC R	97.	0.	28.	125.	52.	0.	15.	67.
WESTERN MARYLAND RWY CO.	97.	0.	0.	97.	52.	0.	0.	52.
CLINCHFIELD RR CO.	0.	0.	25.	25.	0.	0.	14.	14.
FLORIDA EAST COAST RWY CO.	0.	0.	25.	25.	0.	0.	14.	14.
GEORGIA RR CO.	0.	0.	14.	14.	0.	0.	8.	8.
ILLINOIS CENTRAL GULF RR CO.	291.	0.	325.	616.	157.	0.	175.	333.
LOUISVILLE & NASHVILLE RR CO.	291.	0.	300.	591.	157.	0.	162.	319.
SEABOARD COAST LINE RR CO.	194.	0.	314.	508.	105.	0.	169.	274.
SOUTHERN RY. SYSTEM	582.	0.	386.	968.	314.	0.	209.	523.
ATCHISON, TOPEKA & SANTA FE RWY CO.	291.	0.	266.	557.	157.	0.	144.	301.
BURLINGTON NORTHERN CO.	679.	0.	1053.	1732.	367.	0.	569.	935.
CHICAGO & NORTHWESTERN TRANSP. CO.	97.	0.	277.	374.	52.	0.	150.	202.
CHICAGO, MIN., ST. PAUL & PACIFIC R	194.	0.	395.	589.	105.	0.	213.	318.
CHICAGO, ROCK ISLAND & PACIFIC RR CO	97.	0.	300.	397.	52.	0.	162.	214.
COLORADO & SOUTHERN RWY CO.	0.	0.	25.	25.	0.	0.	14.	14.
DENVER & RIO GRANDE WESTERN RR CO.	97.	0.	78.	175.	52.	0.	42.	95.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	0.	50.	50.	0.	0.	27.	27.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	0.	11.	11.	0.	0.	6.	6.
KANSAS CITY SOUTHERN RWY CO.	0.	0.	185.	185.	0.	0.	100.	100.
MISSOURI-KANSAS-TEXAS RR CO.	0.	0.	98.	98.	0.	0.	53.	53.
MISSOURI PACIFIC RR CO.	194.	0.	672.	866.	105.	0.	363.	468.
NORTHWESTERN PACIFIC RR CO.	0.	0.	20.	20.	0.	0.	11.	11.
ST. LOUIS-SAN FRANCISCO RWY CO.	97.	0.	108.	205.	52.	0.	101.	154.
ST. LOUIS SOUTHWESTERN RWY CO.	97.	0.	140.	237.	52.	0.	76.	128.
SOO LINE RR CO.	0.	0.	92.	92.	0.	0.	50.	50.
SOUTHERN PACIFIC CO.	582.	0.	1075.	1657.	314.	0.	581.	895.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	0.	0.	0.	0.	0.	0.	0.
UNION PACIFIC RR CO.	291.	0.	476.	767.	157.	0.	257.	414.
WESTERN PACIFIC RR CO.	0.	0.	20.	20.	0.	0.	11.	11.
ALTON & SOUTHERN RR	97.	0.	42.	139.	52.	0.	23.	75.
BELT RR CO. OF CHICAGO	97.	0.	98.	195.	52.	0.	53.	105.
INDIANA HARBOR BELT RR CO.	194.	0.	216.	410.	105.	0.	116.	221.
TERMINAL RR ASSN. OF ST. LOUIS	97.	0.	126.	223.	52.	0.	68.	120.
UNION RR CO.	97.	0.	255.	352.	52.	0.	138.	190.
YOUNGSTOWN & SOUTHERN RWY CO.	97.	0.	0.	97.	52.	0.	0.	52.
TOTAL	9031.	0.	12883.	21904.	4871.	0.	6957.	11828.

```
                    WRITE(06,828)(ITYPE(M,K),M=1,3),MUNYBS(I,K),JTEMP,ISU
   38               CONTINUE
              SUM   =0.0
              DO 39 J=1,21
                    JTEMP(J)=INT(TEMP(J) + .5)
                    SUM   =SUM + TEMP(J)
                    TEMP(J)=0.0
   39               CONTINUE
              ISUM  =INT(SUM + .5)
              WRITE(06,824)JTEMP,ISUM
   40         CONTINUE
C-----------------------------------------------------------------------
C     CASH FLOW AND NET INVESTMENT
C
C     TABLE 6
C-----------------------------------------------------------------------
   41 TABLE =6
      WRITE(06,802)OPTION,TABLE
      WRITE(06,830)
      KOUNT3=0
      KOUNT4=0
      KOUNT5=0
      KOUNT6=0
      KOUNT7=0
      KOUNT8=0
      CALL ZERO(BUFR1,3)
      DO 49 I=1,ICOUNT
            CFLOW =0.0
            WORTH =0.0
            DO 42 J=1,NYEARS
                  CFLOW =CFLOW + RRDATA(I,J,INCOME) + RRDATA(I,J,6)
     *                        - RRDATA(I,J,7)
                  IF(OPTION .GT. 0)CFLOW =CFLOW + RRDATA(I,J,5)
                  WORTH =WORTH + RRDATA(I,J,8)
   42             CONTINUE
            ACFLOW=CFLOW / FLOAT(NYEARS)
            AWORTH=WORTH / FLOAT(NYEARS)
            FLOW1 =ACFLOW * PVIFA
            DIFF1 =FLOW1 - AWORTH
            MARK1 =IBLANK
            MARK2 =IBLANK
            MARK3 =IBLANK
            IF(FLOW1 .LE. 0.0)GO TO 43
            KOUNT3=KOUNT3 + 1
            LIST3(KOUNT3)=I
            GO TO 44
   43       KOUNT4=KOUNT4 + 1
            LIST4(KOUNT4)=I
            MARK1 =IASTER
   44       IF(AWORTH .LE. 0.0)GO TO 45
            KOUNT5=KOUNT5 + 1
            LIST5(KOUNT5)=I
            GO TO 46
   45       KOUNT6=KOUNT6 + 1
            LIST6(KOUNT6)=I
            MARK2 =IASTER
   46       IF(DIFF1 .LE. 0.0)GO TO 47
            KOUNT7=KOUNT7 + 1
            LIST7(KOUNT7)=I
            GO TO 48
```

```
   47         KOUNT8=KOUNT8 + 1
              LIST8(KOUNT8)=I
              MARK3=LASTER
   48         IF(AWORTH .GT. 0.0)WRITE(06,831)(NAMES(J,I),J=1,12),FLO
     *                                MARK1,AWORTH,MARK2,DIFF1,MARK3
              IF(AWORTH .LE. 0.0)WRITE(06,834)(NAMES(J,I),J=1,12),FLO
     *                                MARK1,AWORTH,MARK2,MARK4
              BUFR1(1)=BUFR1(1) + FLOW1
              BUFR1(2)=BUFR1(2) + AWORTH
              IF(AWORTH .GT. 0.0)BUFR1(3)=BUFR1(3) + DIFF1
              PVFCF(I)=DIFF1
              FCF(I)=FLOW1
              AVGWTH(I)=AWORTH
   49         CONTINUE
         WRITE(06,832)BUFR1
         WRITE(06,833)
C-----------------------------------------------------------------------
C        O & M COST, BEFORE AND AFTER TAX
C
C        TABLE 11
C-----------------------------------------------------------------------
         TABLE =11
         WRITE(06,802)OPTION,TABLE
         WRITE(06,840)
         WRITE(06,841)
         CALL ZERO(TOTAL1,4)
         CALL ZERO(TOTAL2,4)
         DO 54 I=1,ICOUNT
               CALL ZERO(BUFR1,3)
               CALL ZERO(BUFR2,3)
               DO 52 J=1,21
                     DO 51 K=1,3
                           X      =0.0
                           DO 50 L=1,NUMFIX
                                 X      =X + OMCOST(J,K,L) * PHASE2(J,K,
     *                                     * NUMYDS(I,K)
   50                            CONTINUE
                           BUFR1(K)=BUFR1(K) + X
                           BUFR2(K)=BUFR1(K) * (1.0 - RATE3)
                           OMAFTX(I,J,K)=X * (1.0 - RATE3)
   51                      CONTINUE
   52                CONTINUE
               SUM1  =0.0
               SUM2  =0.0
               DO 53 K=1,3
                     SUM1  =SUM1 + BUFR1(K)
                     SUM2  =SUM2 + BUFR2(K)
                     TOTAL1(K)=TOTAL1(K) - BUFR1(K)
                     TOTAL2(K)=TOTAL2(K) + BUFR2(K)
   53                CONTINUE
               TOTAL1(4)=TOTAL1(4) + SUM1
               TOTAL2(4)=TOTAL2(4) + SUM2
               WRITE(06,811)(NAMES(M,I),M=1,9),BUFR1,SUM1,BUFR2,SUM2
   54          CONTINUE
         WRITE(06,812)TOTAL1,TOTAL2
C-----------------------------------------------------------------------
C        OUT OF SERVICE COST, BEFORE AND AFTER TAX
C
C        TABLE 12
C-----------------------------------------------------------------------
```

```
7300          TABLE =12
7320          WRITE(06,800)OPTION,TABLE
7340          WRITE(06,850)
7360          WRITE(06,811)
7380          CALL ZERO(TOTAL1,4)
7400          CALL ZERO(TOTAL2,4)
7420          DO 60 I=1,ICOUNT
7440                CALL ZERO(BUFR1,3)
7460                CALL ZERO(BUFR2,3)
7480                DO 58 J=1,21
7500                      DO 57 K=1,3
7520                            X     =0.0
7540                            DO 56 L=1,NUMFIX
7560                                  X     =X + OUTSRV(J,K,L) * PHASE3(J,K,
7580     *                                      * NUMYDS(I,K)
7600     56                           CONTINUE
7620                            BUFR1(K)=BUFR1(K) + X
7640                            BUFR2(K)=BUFR1(K) * (1.0 -RATE3)
7660                            OSAFTX(I,J,K)=X * (1.0 -RATE3)
7680     57                     CONTINUE
7700     58               CONTINUE
7720                SUM1  =0.0
7740                SUM2  =0.0
7760                DO 59 K=1,3
7780                      SUM1  =SUM1 + BUFR1(K)
7800                      SUM2  =SUM2 + BUFR2(K)
7820                      TOTAL1(K)=TOTAL1(K) + BUFR1(K)
7840                      TOTAL2(K)=TOTAL2(K) + BUFR2(K)
7860     59               CONTINUE
7880                TOTAL1(4)=TOTAL1(4) + SUM1
7900                TOTAL2(4)=TOTAL2(4) + SUM2
7920                WRITE(06,811)(NAMES(M,I),M=1,9),BUFR1,SUM1,BUFR2,SUM2
7940     60         CONTINUE
7960          WRITE(06,812)TOTAL1,TOTAL2
7980 C-----------------------------------------------------------------------
8000 C     DEPRECIATION EXPENSE DETAIL
8020 C
8040 C     TABLE 14
8060 C-----------------------------------------------------------------------
8080          TABLE =14
8100          CALL ZERO(DEPEXP,3780)
8120          DO 70 I=1,ICOUNT
8140                IF(FLAG2 .EQ. 1)WRITE(06,802)OPTION,TABLE
8160                IF(FLAG2 .EQ. 1)WRITE(06,870)(NAMES(M,I),M=1,12)
8180                IF(FLAG2 .EQ. 1)WRITE(06,822)(J,J=1979,1999)
8200                CALL ZERO(TEMP,21)
8220                DO 65 K=1,3
8240                      IF(NUMYDS(I,K) .EQ. 0)GO TO 65
8260                      DO 63 L=1,NUMFIX
8280                            LIFE  =FIXLIF(L)
8300                            RLIFE =FIXLIF(L)
8320                            DO 62 J=1,21
8340                                  X     =FIX(J,K,L) * PHASE1(J,K,L)
8360     *                                      * NUMYDS (I,K) / RLIFE
8380                                  N     =J + LIFE - 1
8400                                  IF(N .GT. 21)N     =21
8420                                  DO 61 JJ=J,N
8440                                        DEPEXP(I,JJ,K)=DEPEXP(I,JJ,K) + X
8460     61                           CONTINUE
8480     62                     CONTINUE
```

```
   63                    CONTINUE
                   SUM   =0.0
                   DO 64 J=1,21
                         JTEMP(J)=INT(DEPEXP(I,J,K) + .5)
                         SUM   =SUM + JTEMP(J)
                         TEMP(J)=TEMP(J) + DEPEXP(I,J,K)
   64                    CONTINUE
                   ISUM  =INT(SUM + .5)
                   IF(FLAG2 .EQ. 1)WRITE(06,823)(ITYPE(M,K),M=1,9),
     *                                NUMYDS(I,K),JTEMP,ISUM
   65              CONTINUE
             SUM   =0.0
             DO 69 J=1,21
                   JTEMP(J)=INT(TEMP(J) + .5)
                   SUM   =SUM + TEMP(J)
   69              CONTINUE
             ISUM  =INT(SUM + .5)
             IF(FLAG2 .EQ. 1)WRITE(06,824)JTEMP,ISUM
   70        CONTINUE
C-----------------------------------------------------------------------
C     DEPRECIATION EXPENSE SUMMARY
C
C     TABLE 13
C-----------------------------------------------------------------------
      TABLE =13
      WRITE(06,802)OPTION,TABLE
      WRITE(06,880)
      WRITE(06,841)
      CALL ZERO(TOTAL1,4)
      CALL ZERO(TOTAL2,4)
      DO 75 I=1,ICOUNT
            SUM1  =0.0
            SUM2  =0.0
            DO 74 K=1,3
                  SUM   =0.0
                  DO 73 J=1,21
                        SUM   =SUM + DEPEXP(I,J,K)
                        DEPEXP(I,J,K)=DEPEXP(I,J,K) * RATES
   73                   CONTINUE
                  BUFR1(K)=SUM
                  BUFR2(K)=SUM * RATES
                  SUM1  =SUM1 + BUFR1(K)
                  SUM2  =SUM2 + BUFR2(K)
                  TOTAL1(K)=TOTAL1(K) + BUFR1(K)
                  TOTAL2(K)=TOTAL2(K) + BUFR2(K)
   74             CONTINUE
            WRITE(06,811)(NAMES(J,I),J=1,9),BUFR1,SUM1,BUFR2,SUM2
            TOTAL1(4)=TOTAL1(4) + SUM1
            TOTAL2(4)=TOTAL2(4) + SUM2
   75       CONTINUE
      WRITE(06,812)TOTAL1,TOTAL2
C-----------------------------------------------------------------------
C     AFTER TAX OPER. CASH FLOW, PV ABATEMENT CASH FLOW
C
C     TABLE 16
C-----------------------------------------------------------------------
      TABLE =16
      WRITE(06,802)OPTION,TABLE
      WRITE(06,885)
      CALL ZERO(TOTAL1,4)
```

```
      SUM1   =0.0
      KOUNT1=0
      KOUNT2=0
      DO 80 I=1,IOUNIT
            SUM   =0.0
            DO 81 K=1,3
                  X     =0.0
                  DO 80 J=1,21
                        X     =X + (ONAPTX(I,J,K) + OSAPTX(I,J,K) +
     *                           DEPEXP(I,J,K) + TXCRU1(I,J,K))
     *                        * PV(J)
   80                   CONTINUE
                  BUFR1(K)=PVSAP(I,K) + X
                  TOTAL1(K)=TOTAL1(K) + BUFR1(K)
                  SUM   =SUM + BUFR1(K)
   81             CONTINUE
            TOTAL1(4)=TOTAL1(4) + SUM1
            DIFF  =PVFCF(I) - SUM
            RNPV(I)=DIFF
            IF(AVGNTH(I) .GT. 0.0)SUM1  =SUM1 + DIFF
            MARK1 =IBLANK
            IF(DIFF .LT. 0.0)MARK1 =ASTER
            IF(AVGNTH (I) .LE. 0.0)GO TO 82
            WRITE(06,886)(NAMES(J,I),J=1,12),BUFR1,SUM,DIFF,MARK1
            GO TO 83
   82       WRITE(06,884)(NAMES(M,I),M=1,12),BUFR1,SUM,MARK4
            GO TO 85
   83       IF(DIFF .GT. 0.0)GO TO 84
            KOUNT2=KOUNT2 + 1
            LIST2(KOUNT2)=I
            GO TO 85
   84       KOUNT1=KOUNT1 + 1
            LIST1(KOUNT1)=I
   85       CONTINUE
      WRITE(06,887)TOTAL1,SUM1
      WRITE(06,833)
C-----------------------------------------------------------------------
C     TABLE 17
C-----------------------------------------------------------------------
      TABLE =17
      WRITE(06,802)OPTION,TABLE
      WRITE(06,890)
      DO 89 II=1,KOUNT1
            I     =LIST1(II)
            WRITE(06,891)(NAMES(J,I),J=1,12),RNPV(I)
   89       CONTINUE
C-----------------------------------------------------------------------
C     TABLE 18
C-----------------------------------------------------------------------
      TABLE =18
      WRITE(06,802)OPTION,TABLE
      WRITE(06,892)
      DO 90 II=1,KOUNT2
            I     =LIST2(II)
            WRITE(06,891)(NAMES(J,I),J=1,12),RNPV(I)
   90       CONTINUE
C-----------------------------------------------------------------------
C     TABLE 19
C-----------------------------------------------------------------------
      TABLE =19
```

```
10890          WRITE(06,802)OPTION,TABLE
10900          WRITE(06,893)
10910          DO 91  I=1,ICOUNT
10920                IF(AVGWTH(I) .LE. 0.0)GO TO 91
10930                RATIO =RNPV(I) / AVGWTH(I)
10940                IF(RATIO .GT. .1)GO TO 91
10950                IF(RATIO .LT. .0)GO TO 91
10960                WRITE(06,891)(NAMES(J,I),J=1,12),RATIO
10970     91         CONTINUE
10980 C-------------------------------------------------------------------
10990 C      TABLE 20
11000 C-------------------------------------------------------------------
11010          TABLE =20
11020          WRITE(06,802)OPTION,TABLE
11030          WRITE(06,894)
11040          DO 92 I=1,ICOUNT
11050                IF(AVGWTH(I) .LE. 0.0)GO TO 92
11060                RATIO =RNPV(I) / AVGWTH(I)
11070                IF(RATIO .LE. .1)GO TO 92
11080                WRITE(06,891)(NAMES(J,I),J=1,12),RATIO
11090     92         CONTINUE
11100 C-------------------------------------------------------------------
11110 C      TABLE 21
11120 C-------------------------------------------------------------------
11130          TABLE =21
11140          WRITE(06,802)OPTION,TABLE
11150          WRITE(06,895)
11160          DO 93 I=1,ICOUNT
11170                IF(AVGWTH(I) .LE. 0.0)GO TO 93
11180                RATIO =RNPV(I) / AVGWTH(I)
11190                IF(RATIO .GT. 0.0)GO TO 93
11200                WRITE(06,891)(NAMES(J,I),J=1,12),RATIO
11210     93         CONTINUE
11220 C-------------------------------------------------------------------
11230 C      TABLE 22
11240 C-------------------------------------------------------------------
11250          TABLE =22
11260          WRITE(06,802)OPTION,TABLE
11270          WRITE(06,896)
11280          DO 94 II=1,KOUNT3
11290                I    =LIST3(II)
11300                WRITE(06,891)(NAMES(J,I),J=1,12),FOF(I)
11310     94         CONTINUE
11320 C-------------------------------------------------------------------
11330 C      TABLE 23
11340 C-------------------------------------------------------------------
11350          TABLE =23
11360          WRITE(06,802)OPTION,TABLE
11370          WRITE(06,897)
11380          DO 95 II=1,KOUNT4
11390               I     =LIST4(II)
11400               WRITE(06,891)(NAMES(J,I),J=1,12),FOF(I)
11410     95         CONTINUE
11420 C-------------------------------------------------------------------
11430 C      TABLE 24
11440 C-------------------------------------------------------------------
11450          TABLE =24
11460          WRITE(06,802)OPTION,TABLE
11470          WRITE(06,898)
11480          DO 96 II=1,KOUNT5
```

```
                I       =LIST5(II)
                WRITE(06,891)(NAMES(J,I),J=1,12),AVGWTH(I)
   94           CONTINUE
C-----------------------------------------------------------------------
C       TABLE 25
C-----------------------------------------------------------------------
        TABLE =25
        WRITE(06,802)OPTION,TABLE
        WRITE(06,899)
        DO 97 II=1,KOUNT6
                I       =LIST6(II)
                WRITE(06,891)(NAMES(J,I),J=1,12),AVGWTH(I)
   97           CONTINUE
C-----------------------------------------------------------------------
C       TABLE 26
C-----------------------------------------------------------------------
        TABLE =26
        WRITE(06,802)OPTION,TABLE
        WRITE(06,888)
        DO 98 II=1,KOUNT7
                I       =LIST7(II)
                WRITE(06,891)(NAMES(J,I),J=1,12),PVFCF(I)
   98           CONTINUE
C-----------------------------------------------------------------------
C       TABLE 27
C-----------------------------------------------------------------------
        TABLE =27
        WRITE(06,802)OPTION,TABLE
        WRITE(06,889)
        DO 99 II=1,KOUNT8
                I       =LIST8(II)
                IF(AVGWTH(I) .LE. 0.0)GO TO 99
                WRITE(06,891)(NAMES(J,I),J=1,12),PVFCF(I)
   99           CONTINUE
C-----------------------------------------------------------------------
C       TERMINATE PROCESSING
C-----------------------------------------------------------------------
        STOP
C-----------------------------------------------------------------------
C       ERROR CONDITIONS
C-----------------------------------------------------------------------
  501 WRITE(06,901)ITEM
      GO TO 10
  502 WRITE(06,902)ITEM
      GO TO 10
  503 WRITE(06,902)ITEM
      GO TO 25
C-----------------------------------------------------------------------
C       INPUT FORMATS
C-----------------------------------------------------------------------
  700 FORMAT(20X,F10.2)
  701 FORMAT(A4,3I4,4X,12A4)
  702 FORMAT(A4,I2,10I7)
  703 FORMAT(20X,I10)
C-----------------------------------------------------------------------
C       OUTPUT FORMATS
C-----------------------------------------------------------------------
  800 FORMAT('0CASHFLOW ANALYSIS BASED ON ONAC SOLID EMISSION',
     *        ' STANDARDS MODEL (CABOOSES)',//)
  801 FORMAT(1X,48('-'),4(1X,15('-')),/,' TOTAL',48X,4I16)
```

```
13300 302 FORMAT('1DP',10I5,'  ',I3,I5,'TABLE',I3,//)
13320 303 FORMAT(1X,I2,1X,A1,I3,10A4,4I6)
13340 304 FORMAT('OPRESENT VALUE FACTORS FOR',/,
13360     *       'OINFLATION FACTOR=',I3,'%',/,
13380     *       ' DISCOUNT FACTOR =',I3,'%',//)
13400 305 FORMAT(I5,F10.6)
13420 306 FORMAT('OPRESENT VALUE FOR A TWENTY YEAR ANNUITY=',F10.6)
13440 307 FORMAT(75X,'NOISE SOURCE',/,49X,64('-'),/,
13460     *                              49X,'                    LOAD CELL
13480     *       ' RAILROAD NAME',35X,'    RETARDERS       TEST SITES
13500     *                            '    SWITCHERS         TOTAL
13520     *       1X,48('-'),4(1X,15('-')))
13540 308 FORMAT(1X,12A4,4F16.0)
13560 309 FORMAT(1X,48('-'),4(1X,15('-')),/,' TOTAL',43X,4F16.0)
13580 310 FORMAT('OPRESENT VALUE OF CAPITAL EXPENDITURE SUMMARY',/,
13600     *       ' AT JANUARY 1, 1980',/,
13620     *       ' (DOLLARS IN THOUSANDS)',/,
13640     *       ' REPLACEMENT ASSUMPTION APPLIED',/,
13660     *       ' ----------------------------------------',//)
13680 311 FORMAT(1X,9A4,8F12.0)
13700 312 FORMAT(1X,36('-'),8(1X,11('-')),/,' TOTAL',31X,8F12.0)
13720 313 FORMAT('0CAPITAL EXPENDITURE SUMMARY (1979 DOLLARS)',/,
13740     *       ' (DOLLARS IN THOUSANDS)',/,
13760     *       ' REPLACEMENT ASSUMPTION APPLIED',/,
13780     *       ' ----------------------------------------',//)
13800 314 FORMAT('0INVESTMENT TAX.CREDIT SUMMARY (1979 DOLLARS)',/,
13820     *       ' (DOLLARS IN THOUSANDS)',/,
13840     *       ' REPLACEMENT ASSUMPTION APPLIED',/,
13860     *       ' ----------------------------------------',//)
13880 315 FORMAT('0INITIAL CAPITAL EXPENDITURE SUMMARY',/,
13900     *       ' (DOLLARS IN THOUSANDS)',/,
13920     *       ' ----------------------------------------',//)
13940 316 FORMAT(47X,'NOISE SOURCE',/,49X,48('-'),/,
13960     *                              49X,'                    LOAD CELL
13980     *       ' RAILROAD NAME',35X,'    RETARDERS       TEST SITES
14000     *                            '    SWITCHERS     ',/,
14020     *       1X,48('-'),3(1X,15('-')))
14040 317 FORMAT(1X,48('-'),3(1X,15('-')),/,' TOTAL',43X,3I16)
14060 318 FORMAT('OSCHEDULE OF PRESENT VALUE CAPITAL EXPENDITURES',/,
14080     *       ' AT JANUARY 1, 1980',/,
14100     *       ' (DOLLARS IN THOUSANDS)',/,
14120     *       1X,12A4,/,
14140     *       1X,48('-'))
14160 321 FORMAT('0',5A4,'=',I6)
14180 322 FORMAT(18X,21I5,'     TOTAL',/,18X,21(' -----'),' ----------')
14200 323 FORMAT(1X,3A4,'=',I4,21I5,I10)
14220 324 FORMAT(' ----------------',21(' -----'),' ----------',/,
14240     *       ' TOTAL           ',21I5,I10)
14260 330 FORMAT('0CASH FLOW SUMMARY BEFORE ABATEMENT',/,
14280     *       ' PRESENT VALUE AT JANUARY 1, 1980',/,
14300     *       ' (DOLLARS IN THOUSANDS)',/,
14320     *       ' ----------------------------------------',///,
14340     *       49X,' PRESENT VALUE OF     .    AVERAGE        NET PRESEN
14360     *       ' VALUE',/,
14380     *       ' RAILROAD',40X,' FUTURE CASH FLOWS    NET INVESTMENT
14400     *       '  FUTURE CASH FLOWS',/,
14420     *       1X,48('-'),3(' ---------- ---------- '))
14440 331 FORMAT(1X,12A4,3(F18.0,A1))
14460 332 FORMAT(1X,48('-'),3(1X,19('-')),/,1X,'TOTAL',43X,3F19.0)
14480 333 FORMAT('0* - VALUE LESS THAN OR EQUAL TO ZERO')
```

```
 830 FORMAT(1X,12A4,2F16.0,A1),15X,A4)
 840 FORMAT('0OPERATIONS & MAINTENANCE COST SUMMARY (1979 DOLLARS
     *        ' (DOLLARS IN THOUSANDS)',/,
     *        ' ------------------------------------------------------------
     *        37X,19X,'BEFORE TAX',19X,20X,'AFTER TAX',/,
     *        37X,2(1X,47('-')))
 841 FORMAT(37X,2(17X,'NOISE SOURCE',17X),/,37X,2(1X,47('-')),/,
     *    37X,2('                    LOAD CELL                          '),
     *        ' RAILROAD',28X,
     *        2('  RETARDERS  TEST SITES   SWITCHERS     TOTAL    '),
     *        1X,36('-'),8(1X,11('-')))
 850 FORMAT('0OUT OF SERVICE COST SUMMARY (1979 DOLLARS)',/,
     *        ' (DOLLARS IN THOUSANDS)',/,
     *        ' ------------------------------------------------------',//,
     *        37X,19X,'BEFORE TAX',19X,20X,'AFTER TAX',/,
     *        37X,2(1X,47('-')))
 870 FORMAT('0DEPRECIATION EXPENSE SCHEDULE (1979 DOLLARS)',/,
     *        ' (DOLLARS IN THOUSANDS)',/,
     *        1X,12A4,/,
     *        1X,48('-'))
 880 FORMAT('0DEPRECIATION EXPENSE SUMMARY (1979 DOLLARS)',/,
     *        ' (DOLLARS IN THOUSANDS)',/,
     *        ' ------------------------------------------------------',//,
     *        37X,19X,'BEFORE TAX',19X,20X,'AFTER TAX',/,
     *        37X,2(1X,47('-')))
 884 FORMAT(1X,12A4,4F16.0,12X,A4)
 885 FORMAT('0SUMMARY OF NET PRESENT VALUE OF ABATEMENT CASH FLOW'
     *        ' (DOLLARS IN THOUSANDS)',/,
     *        ' ------------------------------------------------------------'
     *        49X,26X,'NOISE SOURCE',/,
     *        49X,14X,'NPV OF INCREMENTAL ABATEMENT CASH FLOW',/,
     *        49X,64('-'),'          NPV          ',/,
     *        49X,16X,2('                    '),16X,'  OF CASH FLOWS ',/
     *        ' RAILROAD NAME',35X,'    RETARDERS          LCTS
     *        '    SWITCHERS          TOTAL       WITH ABATEMENT ',/,
     *        1X,48('-'),5(1X,15('-')))
 886 FORMAT(1X,12A4,5F16.0,A1)
 887 FORMAT(1X,48('-'),5(1X,15('-')),/,
     *        ' TOTAL',43X,5F16.0)
 888 FORMAT('0RAILROAD COMPANIES WITH POSITIVE NET PRESENT VALUE',
     *        ' OF FUTURE CASH FLOWS BEFORE ABATEMENT:',//,
     *        ' RAILROAD NAME',35X,' NET PRESENT VALUE',/,
     *        1X,48('-'),1X,17('-'))
 889 FORMAT('0RAILROAD COMPANIES WITH NEGATIVE NET PRESENT VALUE',
     *        ' OF FUTURE CASH FLOWS BEFORE ABATEMENT:',//,
     *        ' RAILROAD NAME',35X,' NET PRESENT VALUE',/,
     *        1X,48('-'),1X,17('-'))
 890 FORMAT('0RAILROAD COMPANIES WITH POSITIVE NET PRESENT VALUE:',
     *        ' RAILROAD NAME',35X,' NET PRESENT VALUE',/,
     *        1X,48('-'),1X,17('-'))
 891 FORMAT(1X,12A4,F18.2)
 892 FORMAT('0RAILROAD COMPANIES WITH NEGATIVE OR ZERO NET PRESENT
     *        ' VALUE:',//,' RAILROAD NAME',35X,' NET PRESENT VALUE',
     *        1X,48('-'),1X,17('-'))
 893 FORMAT('0RAILROAD COMPANIES WITH .1 >= RATIO > 0:',//,
     *        ' RAILROAD NAME',48X,'RATIO',/,
     *        1X,48('-'),1X,17('-'))
 894 FORMAT('0RAILROAD COMPANIES WITH RATIO > .1:',//,
     *        ' RAILROAD NAME',48X,'RATIO',/,
     *        1X,48('-'),1X,17('-'))
```

```
15700     895 FORMAT('0RAILROAD COMPANIES WITH RATIO <= 0',//,
15720    *        ' RAILROAD NAME',48X,'RATIO',/,
15740    *        1X,48('-'),1X,17('-'))
15760     896 FORMAT('0RAILROAD COMPANIES WITH POSITIVE FUTURE CASH FLOW',
15780    *        ' RAILROAD NAME',35X,' FUTURE CASH FLOW ',/,
15800    *        1X,48('-'),1X,17('-'))
15820     897 FORMAT('0RAILROAD COMPANIES WITH NEGATIVE FUTURE CASH FLOW',
15840    *        ' RAILROAD NAME',35X,' FUTURE CASH FLOW ',/,
15860    *        1X,48('-'),1X,17('-'))
15880     898 FORMAT('0RAILROAD COMPANIES WITH POSITIVE NET INVESTMENT',//
15900    *        ' RAILROAD NAME',35X,'  NET INVESTMENT  ',/,
15920    *        1X,48('-'),1X,17('-'))
15940     899 FORMAT('0RAILROAD COMPANIES WITH NEGATIVE NET INVESTMENT',//
15960    *        ' RAILROAD NAME',35X,'  NET INVESTMENT  ',/,
15980    *        1X,48('-'),1X,17('-'))
16000 C-----------------------------------------------------------------------
16020 C      ERROR FORMATS
16040 C-----------------------------------------------------------------------
16060     901 FORMAT(' CANNOT STORE ',A4,' IN RAILROAD DICTIONARY')
16080     902 FORMAT(' CANNOT  FIND ',A4,' IN RAILROAD DICTIONARY')
16100         END
16120         SUBROUTINE ZERO(ARRAY,LENGTH)
16140         DIMENSION ARRAY(LENGTH),IARRAY(LENGTH)
16160         DIMENSION TOTAL(LENGTH),ITOTAL(LENGTH)
16180         DO 10 I=1,LENGTH
16200            ARRAY(I)=0.0
16220      10    CONTINUE
16240         RETURN
16260 C
16280         ENTRY IZERO(IARRAY,LENGTH)
16300         DO 20 I=1,LENGTH
16320            IARRAY(I)=0
16340      20    CONTINUE
16360         RETURN
16380 C
16400         ENTRY ADD(ARRAY,TOTAL,LENGTH)
16420         DO 30 I=1,LENGTH
16440            TOTAL(I)=TOTAL(I) + ARRAY(I)
16460      30    CONTINUE
16480         RETURN
16500 C
16520         ENTRY IADD(IARRAY,ITOTAL,LENGTH)
16540         DO 40 I=1,LENGTH
16560            ITOTAL(I)=ITOTAL(I) + IARRAY(I)
16580      40    CONTINUE
16600         RETURN
16620         END
16640         SUBROUTINE STORTV(I1,I2,I3,LENGTH,IFREE)
16660         DIMENSION I1(LENGTH),I2(LENGTH),I3(LENGTH)
16680         DO 10 I=1,LENGTH
16700            I2(I)=I + 1
16720            I3(I)=0
16740      10    CONTINUE
16760         I2(LENGTH)=0
16780         IFREE =1
16800         RETURN
16820         ENTRY ISTORE(*,ITEM,I1,I2,I3,LENGTH,IFREE)
16840         IF(IFREE .EQ. 0)RETURN 1
16860         I1(IFREE)=ITEM
16880         IHASH =IABS(MOD(ITEM,LENGTH)) + 1
```

```
      NEXT = I2(INDEX)
      I2(INDEX)=I3(INDEX)
      I3(INDEX)=INREF
      INDEX = NEXT
      RETURN
      ENTRY IFETCH(I1,ITEM,I1,I2,I3,LENGTH,INDEX)
      INDEX =IABS(MOD(ITEM,LENGTH)) + 1
      INDEX =I3(INDEX)
   20 IF(INDEX .EQ. 0)RETURN 1
      IF(I1(INDEX) .NE. ITEM)GO TO 30
      RETURN
   30 INDEX =I2(INDEX)
      GO TO 20
      END
      SUBROUTINE READ(ARRAY,JJ,KK,LL)
      DIMENSION ARRAY(JJ,KK,LL)
      DO 10 K=1,KK
            READ (03,700)DUMMY
            DO 10 J=1,JJ
                  READ (03,701)(ARRAY(J,K,L),L=1,LL)
   10             CONTINUE
      RETURN
  700 FORMAT(A4)
  701 FORMAT(4X,6F10.3)
      END
      SUBROUTINE TOTAL(ARRAY,NROWS,NCOLS)
      DIMENSION ARRAY(60,8)
C
      COMMON    /BLOCKA/ I1(60),I2(60),I3(60),ILENTH,IFREE,NAMES(12,
C
      ISUM  =NROWS + 1
      JSUM  =NCOLS + 1
      DO 20 I=1,NROWS
            SUM   =0.0
            DO 10 J=1,NCOLS
                  SUM   =SUM + ARRAY(I,J)
                  ARRAY(ISUM,J)=ARRAY(ISUM,J) + ARRAY(I,J)
   10             CONTINUE
            ARRAY(I,JSUM)=SUM
            ARRAY(ISUM,JSUM)=ARRAY(ISUM,JSUM) + SUM
   20       CONTINUE
      RETURN
C
      ENTRY PRINT(DUMMY)
      DO 30 I=1,NROWS
            WRITE(06,801)(NAMES(J,I),J=1,12),(ARRAY(I,J),J=1,JSUM)
   30       CONTINUE
      WRITE(06,802)(ARRAY(ISUM,J),J=1,JSUM)
      RETURN
C
  801 FORMAT(1X,12A4,8F16.0)
  802 FORMAT(1X,48('-'),4(1X,15('-')),/,' TOTAL',43X,4F16.0)
      END
//GO.FT01F001 DD DSN=CN.EPAJHU.S2KC.INDEX1,UNIT=3330-1,DISP=SHR
//GO.FT02F001 DD DSN=CN.EPAJHU.S2KC.RRDATA,UNIT=3330-1,DISP=SHR
//GO.FT03F001 DD DSN=CN.EPAJHU.S2KC.FACTORS1,UNIT=3330-1,DISP=SHR
?
```

FACTORS

[illegible]	5
[illegible]	10
[illegible]	4%
[illegible]	20
[illegible]	12
FOOD RETAIL RPT	0
DROP EXP RETAIL	0
NUMBER FIXES	6
INCOME USAGE	4
NUMBER YEARS	6
FACTOR1	0.725806
FACTOR2	0.761905
FACTOR3	0.790141

CAPITAL EXPENSE PER UNIT (FIXES), RETARDERS

1979	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	40.824	7.776	300.000	0.0	0.000	0.000
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	40.824	0.000	0.000	0.0	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000

CAPITAL EXPENSE PER UNIT (FIXES), LOAD CELL TEST SITES

1979	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	0.000	0.000	0.000	97.500	0.000	0.000
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	85.442	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000

CAPITAL EXPENSE PER UNIT (FIXES), SWITCHERS

1979

1980	0.000	0.000	0.000	0.000	5.964	1.964
1981	0.000	0.000	0.000	0.000	5.964	1.964
1982	0.000	0.000	0.000	0.000	5.964	1.964
1983	0.000	0.000	0.000	0.000	5.964	1.964
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000

ANNUAL OPERATING & MAINTENANCE COSTS PER UNIT ($, 000), RETARDERS

1979	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	0.000	9.645	0.000	0.000	0.000	0.000
1984	0.000	9.645	0.000	0.000	0.000	0.000
1985	0.000	9.645	0.000	0.000	0.000	0.000
1986	0.000	9.645	0.000	0.000	0.000	0.000
1987	0.000	9.645	0.000	0.000	0.000	0.000
1988	0.000	9.645	0.000	0.000	0.000	0.000
1989	0.000	9.645	0.000	0.000	0.000	0.000
1990	0.000	9.645	0.000	0.000	0.000	0.000
1991	0.000	9.645	0.000	0.000	0.000	0.000
1992	0.000	9.645	0.000	0.000	0.000	0.000
1993	0.000	9.645	0.000	0.000	0.000	0.000
1994	0.000	9.645	0.000	0.000	0.000	0.000
1995	0.000	9.645	0.000	0.000	0.000	0.000
1996	0.000	9.645	0.000	0.000	0.000	0.000
1997	0.000	9.645	0.000	0.000	0.000	0.000
1998	0.000	9.645	0.000	0.000	0.000	0.000
1999	0.000	9.645	0.000	0.000	0.000	0.000

ANNUAL OPERATING & MAINTENANCE COSTS PER UNIT ($, 000), LOAD CELL TEST SI

1979	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	0.000	0.000	0.000	7.312	0.000	0.000
1984	0.000	0.000	0.000	7.312	0.000	0.000
1985	0.000	0.000	0.000	7.312	0.000	0.000
1986	0.000	0.000	0.000	7.312	0.000	0.000
1987	0.000	0.000	0.000	7.312	0.000	0.000
1988	0.000	0.000	0.000	7.312	0.000	0.000
1989	0.000	0.000	0.000	7.312	0.000	0.000
1990	0.000	0.000	0.000	7.312	0.000	0.000
1991	0.000	0.000	0.000	7.312	0.000	0.000
1992	0.000	0.000	0.000	7.312	0.000	0.000
1993	0.000	0.000	0.000	7.312	0.000	0.000
1994	0.000	0.000	0.000	7.312	0.000	0.000
1995	0.000	0.000	0.000	7.312	0.000	0.000

1978	0.000	0.000	0.000	7.312	0.000	0.000
1979	0.000	0.000	0.000	7.312	0.000	0.000
1980	0.000	0.000	0.000	7.312	0.000	0.000
1981	0.000	0.000	0.000	7.312	0.000	0.000

ANNUAL OPERATING & MAINTENANCE COSTS PER UNIT ($, 000), SWITCHERS

1978	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	1.252
1981	0.000	0.000	0.000	0.000	0.000	1.252
1982	0.000	0.000	0.000	0.000	0.000	1.252
1983	0.000	0.000	0.000	0.000	0.000	1.252
1984	0.000	0.000	0.000	0.000	5.956	1.252
1985	0.000	0.000	0.000	0.000	5.956	1.252
1986	0.000	0.000	0.000	0.000	5.956	1.252
1987	0.000	0.000	0.000	0.000	5.956	1.252
1988	0.000	0.000	0.000	0.000	5.956	1.252
1989	0.000	0.000	0.000	0.000	5.956	1.252
1990	0.000	0.000	0.000	0.000	5.956	1.252
1991	0.000	0.000	0.000	0.000	5.956	1.252
1992	0.000	0.000	0.000	0.000	5.956	1.252
1993	0.000	0.000	0.000	0.000	5.956	1.252
1994	0.000	0.000	0.000	0.000	5.956	1.252
1995	0.000	0.000	0.000	0.000	5.956	1.252
1996	0.000	0.000	0.000	0.000	5.956	1.252
1997	0.000	0.000	0.000	0.000	5.956	1.252
1998	0.000	0.000	0.000	0.000	5.956	1.252
1999	0.000	0.000	0.000	0.000	5.956	1.252

OUT OF SERVICE COST PER UNIT ($, 000), RETARDERS

1978	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	97.000	0.000	0.000	0.000	0.000	0.000
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000

OUT OF SERVICE COST PER UNIT ($, 000), LOAD CELL TEST SITES

1978	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	0.000	0.000	0.000	0.000	0.000	0.000
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000

1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000
OUT OF SERVICE COST PER UNIT ($, 000), SWITCHERS						
1979	0.000	0.000	0.000	0.000	0.000	0.000
1980	0.000	0.000	0.000	0.000	0.000	0.000
1981	0.000	0.000	0.000	0.000	0.000	0.000
1982	0.000	0.000	0.000	0.000	0.000	0.000
1983	0.000	0.000	0.000	0.000	2.500	0.000
1984	0.000	0.000	0.000	0.000	0.000	0.000
1985	0.000	0.000	0.000	0.000	0.000	0.000
1986	0.000	0.000	0.000	0.000	0.000	0.000
1987	0.000	0.000	0.000	0.000	0.000	0.000
1988	0.000	0.000	0.000	0.000	0.000	0.000
1989	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000
PHASE-IN FACTORS, CAPITAL EXPENDITURES, RETARDERS						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000
PHASE IN FACTORS, CAPITAL EXPENDITURES, LOAD CELL TEST SITES						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000

1978	1.000	1.000	1.000	1.000	1.000	1.000
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000
PHASE-IN FACTORS, CAPITAL EXPENDITURES, SWITCHERS						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	0.1625	0.1625
1981	1.000	1.000	1.000	1.000	0.1625	0.1625
1982	1.000	1.000	1.000	1.000	0.1625	0.1625
1983	1.000	1.000	1.000	1.000	0.5125	0.5125
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000
PHASE-IN FACTORS, O & M COSTS, RETARDERS						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000

PHASE-IN FACTORS, O & M COSTS, LOAD CELL TEST SITES						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000
PHASE-IN FACTORS, O & M COSTS, SWITCHERS						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	0.1625
1981	1.000	1.000	1.000	1.000	1.000	0.3250
1982	1.000	1.000	1.000	1.000	1.000	0.4875
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	0.1625	1.000
1985	1.000	1.000	1.000	1.000	0.1625	1.000
1986	1.000	1.000	1.000	1.000	0.1625	1.000
1987	1.000	1.000	1.000	1.000	0.5125	1.000
1988	1.000	1.000	1.000	1.000	0.1625	1.000
1989	1.000	1.000	1.000	1.000	0.1625	1.000
1990	1.000	1.000	1.000	1.000	0.1625	1.000
1991	1.000	1.000	1.000	1.000	0.5125	1.000
1992	1.000	1.000	1.000	1.000	0.1625	1.000
1993	1.000	1.000	1.000	1.000	0.1625	1.000
1994	1.000	1.000	1.000	1.000	0.1625	1.000
1995	1.000	1.000	1.000	1.000	0.5125	1.000
1996	1.000	1.000	1.000	1.000	0.1625	1.000
1997	1.000	1.000	1.000	1.000	0.1625	1.000
1998	1.000	1.000	1.000	1.000	0.1625	1.000
1999	1.000	1.000	1.000	1.000	0.5125	1.000
PHASE-IN FACTORS, OUT OF SERVICE COSTS, RETARDERS						
1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000

[illegible]	1.000	1.000	1.000	1.000	1.000	1.000
[illegible]	1.000	1.000	1.000	1.000	1.000	1.000
[illegible]	1.000	1.000	1.000	1.000	1.000	1.000
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[illegible]	1.000	1.000	1.000	1.000	1.000	1.000
[illegible]	1.000	1.000	1.000	1.000	1.000	1.000

PHASE-IN FACTORS, OUT OF SERVICE COSTS, LOAD CELL TEST CITES

1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000

PHASE-IN FACTORS, OUT OF SERVICE COSTS, SWITCHERS

1979	1.000	1.000	1.000	1.000	1.000	1.000
1980	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.000	1.000	1.000	1.000	1.000	1.000
1982	1.000	1.000	1.000	1.000	1.000	1.000
1983	1.000	1.000	1.000	1.000	1.000	1.000
1984	1.000	1.000	1.000	1.000	1.000	1.000
1985	1.000	1.000	1.000	1.000	1.000	1.000
1986	1.000	1.000	1.000	1.000	1.000	1.000
1987	1.000	1.000	1.000	1.000	1.000	1.000
1988	1.000	1.000	1.000	1.000	1.000	1.000
1989	1.000	1.000	1.000	1.000	1.000	1.000
1990	1.000	1.000	1.000	1.000	1.000	1.000
1991	1.000	1.000	1.000	1.000	1.000	1.000
1992	1.000	1.000	1.000	1.000	1.000	1.000
1993	1.000	1.000	1.000	1.000	1.000	1.000
1994	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000

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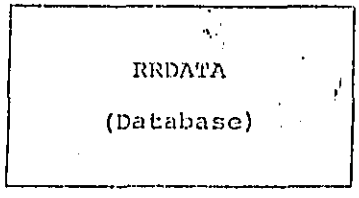
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(Database)

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CO	78	21454	68865	68865	68865	29222	-2283	3[illegible]	7[illegible]			
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ATSF74		64500	68258	64948	66943	57944	19284	2[illegible]	1[illegible]	36000	152242	
ATSF75		69719	56916	55626	55623	61862	-493	3[illegible]	2[illegible]	27000	177400	
ATSF76		66153	56384	55096	55096	63545	-1889	5[illegible]	1[illegible]	36000	108891	
ATSF77		80775	76561	75289	75289	70361	12378	-1[illegible]	1[illegible]	36000	193811	
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BM	74	-2227	-3761	-4514	-873	4198	0	89	73451	0	3435	
BM	75	-10649	-11933	-12686	-13529	4152	0	0	60735	0	5870	
BM	76	-6487	-8656	-22965	-22927	4185	0	-289	37812	0	1171	
BM	77	0	-4861	-5614	-5614	3035	0	0	47245	0	0	
BM	78	-968	-282	-471	-471	3899	0	70	46446			
NW	73	97687	71189	68790	68790	64129	0	0	1170422	51449	63625	
NW	74	113059	102096	99841	113211	64759	27844	8671	970477	52054	79297	
NW	75	115298	89717	87506	87506	67116	28236	-460[illegible]	[illegible]478	51884	122116	
NW	76	143401	133470	131522	131522	69272	9976	1701084671		53872	108090	
NW	77	127211	104904	103435	103435	70247	15099	-81731132050		56086	88693	
NW	78	359951	127605	112868	167597	72689	-13839	2116812[illegible]139				
MILW73		2001	4800	3405	3405	15708	0	0	320738	0	7152	
MILW74		-2006	14200	11402	11402	15157	1747	12301	343340	0	14334	
MILW75		-25444	-18271	-21067	-21067	15000	-4302	-5[illegible]	321227	0	14270	
MILW76		-19346	-6382	-12079	-12079	14806	0	3[illegible]	309145	0	8572	
MILW77		-55921	-37316	-38695	-36247	15287	2258	18230	282031	0	17301	
MILW78		-74416	-65167	-65167	-65167	22276	0	10895	206524			
LN	73	44030	26133	25501	37007	36476	0	0	584722	7442	29753	
LN	74	51730	37636	37007	25801	36168	11356	240	507179	12178	65011	
LN	75	50168	24514	23887	23887	37434	8028	-181	510327	15739	112509	
LN	76	59583	27767	27146	27146	38903	-293	-878	529123	13850	108513	
LN	77	54873	20850	20272	20272	45145	-643	1012	538009	14942	107914	
LN	78	22847	-21476	-31198	-31198	46024	1044	699	506811			
CR	73-	891311-	418847-	418847-	418847	37944	0	9576	211153	0	62841	
CR	74-	626133-	631352-	631352-	632352	50600	0	-1472-	264343	0	234712	
CR	75-	678014-	681484-	681484-	681484	66725	0	7585-	169548			
CR	76-	891311-	418847-	418847-	418847	37944	0	9576	211153	0	62841	
CR	77-	626133-	631352-	631352-	632352	50600	0	-1472-	264343	0	234712	
CR	78-	678014-	681484-	681484-	681484	66725	0	7885-	169548			
SCL	73	41455	76375	76375	76375	38138	0	0	964873	15598	120614	
SCL	74	43803	98214	98214	98214	38381	9804	5751210[illegible]		25121	100583	
SCL	75	34098	47336	47336	47336	38383	2562	1778510[illegible]		23669	46297	
SCL	76	54397	85373	85373	85373	34276	1053	2912[illegible]		24375	35246	
SCL	77	80591	103037	103037	103037	37402	-941	2773[illegible]		30536	94750	
SCL	78	105478	74072	69354	69354	38161	-1898	-598[illegible]				
BN	73	43482	38656	38656	38656	62174	0	0[illegible]		15265	141101	
BN	74	71830	82560	82560	82560	62586	1190	6201[illegible]		21587	190514	
BN	75	54873	52691	52691	52691	66694	7032	287[illegible]		12259	154107	
BN	76	63698	72588	72588	72588	70631	2847	762[illegible]		19069	158945	
BN	77	61514	74903	74903	74903	79521	1385	1592[illegible]		24449	196959	

[illegible]	[illegible]	[illegible]	113290	113290	113560	91940	1300	[illegible]				
[illegible]	[illegible]	[illegible]	2624	2624	2624	1069	0	0	15077	0	0
[illegible]	[illegible]	[illegible]	1441	1441	1441	1124	551	0	17020	0	0
[illegible]	[illegible]	[illegible]	929	929	929	1177	1324	0	17949	0	0
[illegible]	[illegible]	[illegible]	1057	1057	1057	1816	206	0	19006	1655	0
[illegible]	[illegible]	[illegible]	1070	1070	1070	1797	15	0	20074	327	0
[illegible]	[illegible]	[illegible]	418	418	418	1302	94	0	20494		
[illegible]	[illegible]	[illegible]	-69	-69	-69	0	0	-2884	60056	0	0
[illegible]	[illegible]	[illegible]	-102	-102	-102	2052	450	-3842	71991	757	9989
[illegible]	[illegible]	[illegible]	3308	3308	3308	2603	381	2005	73811	757	14452
[illegible]	[illegible]	[illegible]	2623	2623	2623	843	1100	542	74353	757	169
[illegible]	[illegible]	[illegible]	5222	5222	5222	2930	105	2146	76426	757	3096
[illegible]	[illegible]	[illegible]	3375	3375	3375	2942	-97	5765	79089		
BAR	73	2257	1165	1033	1033	2224	0	0	40560	360	613
BAR	74	2443	1703	1577	2059	2096	-316	72	36471	955	689
BAR	75	1113	398	278	348	2054	227	51	36819	0	2077
BAR	76	1580	1144	1030	1030	2077	0	193	37489	360	1228
BAR	77	110	-317	-1081	-1081	2018	0	153	36408	0	2337
BAR	78	1754	1083	980	980	1961	0	0	37389		
BBO	73	19883	18968	17620	17620	5762	0	0	160687	4024	25047
BBO	74	14884	15618	14307	14307	5883	3000	248	145931	11393	16185
BBO	75	12921	11710	10413	10413	5960	2200	261	150394	5950	9629
BBO	76	18282	17466	16201	16201	6473	2600	203	159000	7595	23301
BBO	77	21288	20049	18802	18802	7613	2955	144	168054	9748	19983
BBO	78	25835	24553	23323	23323	8017	4000	291	179730		
BMP	73	4281	3867	3867	3867	75	0	0	6445	0	34
BMP	74	5822	4990	4990	4990	82	0	0	11435	0	1544
BMP	75	3964	3667	3667	3667	24	0	0	12002	0	3020
BMP	76	4213	4776	4776	4776	204	0	0	16343	0	2202
BMP	77	8374	8029	8029	8029	306	0	0	17492	10000	3337
BMP	78	8403	8003	8003	8003	279	0	0	31233		
BP	73	5244	4609	4125	5629	4643	0	0	140147	0	2853
BP	74	3229	3674	3381	3381	4576	364	0	128376	0	4532
BP	75	1500	1373	1281	1281	5030	1012	0	128057	1000	13752
BP	76	5922	2267	1975	1975	5152	-673	0	122384	2000	3294
BP	77	7971	5070	4814	4814	7630	-385	0	134198	3000	7297
BP	78	8267	5702	5457	-110104	7601	185	0	11694		
MEC	73	2131	1752	1560	1560	1554	0	0	37343	0	1477
MEC	74	3405	3063	2875	6090	1604	61	0	39476	175	2988
MEC	75	979	415	233	233	1623	72	0	39391	318	7976
MEC	76	1425	450	270	270	1834	72	0	39622	39	2044
MEC	77	1615	983	803	803	1828	36	0	40386	0	1287
MEC	78	2677	1767	1607	1607	1837	8	0	45900		
ITC	73	1319	638	638	638	601	0	0	10610	0	5993
ITC	74	2500	1343	1343	1343	865	265	0	11780	0	3890
ITC	75	1737	579	579	579	995	480	0	12359	0	477
ITC	76	1408	627	627	627	952	438	0	12984	0	1293
ITC	77	1144	262	262	262	944	269	0	13248	0	1865
ITC	78	-2811	-3339	-3339	-3339	983	0	0	9909		
IBM	73	42757	47207	45132	45132	22649	0	0	742820	18053	64484
IBM	74	24095	22969	21026	29474	24979	4112	589	670303	15450	117500
IBM	75	9036	2460	1080	1080	26780	-245	2535	645237	6547	47789
IBM	76	8727	14897	13659	15227	30231	1783	2024	674060	0	36577
IBM	77	1174	4759	3339	3339	35502	0	1640	692459	0	92134
IBM	78	2154	-560	-1972	-1972	37009	0	-566	682190		
GP	73	-731	0	0	0	0	0	0	2256	0	0
GP	74	-1074	0	0	0	0	0	0	2256	0	0
GP	75	-2179	0	0	0	0	0	0	2256	0	0
GP	76	-2818	0	0	0	0	0	0	2256	0	0
GP	77	-2260	0	0	0	0	0	0	2256	0	0

POOR COPY

	73	[illegible]	0	0	0	0	0	0	2254		
	[illegible]	[illegible]	12472	[illegible]	15240	[illegible]	0	0	39503	0	45804
	75	[illegible]	-850	248	-933	14855	-1666	2177	25498	0	44774
	76	[illegible]	-16174	-16174	-16174	17407	-4965	-2078	7875	0	62053
EJE	78	21113	3199	3050	3050	20284	758	0	12125	0	47434
EJE	77	18503	211	-460	-460	20480	-242	0	21785	0	31498
EJE	78	21999	16003	-15910	-15910	20165	-603	0	25742		
FI	73	-21174	-19281	17281	-14280	9447	0	0	226374	0	5409
FI	74	-22102	-23097	-23097	-23097	9593	0	117	202810	0	5435
FI	75	-22051	-31166	-31166	-31166	9278	0	-656	171618	0	3723
FI	76	-23115	-25047	-25047	-25047	7935	0	-40	146597	0	8930
FI	77	29163	-34834	-34834	-34834	8087	0	-1195	111768	0	4737
FI	78	-12740	-21162	-21162	-21162	17330	0	601	91790		
EJE	73	7468	10229	10229	11161	2657	0	0	73660	7700	4496
EJE	74	9494	13055	13055	13055	2754	1265	0	71134	12200	5185
EJE	75	1000	3202	3202	4098	2784	1196	0	68282	7000	28268
EJE	76	7998	9298	9298	9298	3416	8131	0	71580	6000	15467
EJE	77	8598	9950	9950	9950	3914	3962	0	75529	6000	12020
EJE	78	17691	15038	15038	15038	10225	2275	0	85066		
RFP	73	4771	6685	6685	6685	1652	0	0	65042	3737	3731
RFP	74	5135	8331	8331	8331	1850	1560	587	73545	4458	9412
RFP	75	4279	7185	7185	7185	2029	794	542	76234	4456	4497
RFP	76	5150	7398	9586	9586	2060	1689	460	78658	4545	5496
RFP	77	6795	9164	10582	10582	2238	911	403	83313	5906	4723
RFP	78	6360	10585	10585	10585	2372	907	806	86828		
RCS	73	4945	529	529	-253	6056	0	0	138610	3790	13801
RCS	74	7690	2803	2803	2803	6341	980	-249	114526	0	9434
RCS	75	6438	1327	1327	1327	6250	200	19	115771	0	1905
RCS	76	6481	2433	2433	2433	6723	790	-159	118264	0	4307
RCS	77	13412	8396	8396	8396	11037	4375	153	124055	699	22563
RCS	78	18096	14382	14382	14382	12405	4494	135	133669		
FWD	73	-197	-392	-392	-392	753	0	0	33155	0	2896
FWD	74	-3418	-3349	-3349	-3349	694	-34	-8	29806	0	6883
FWD	75	2072	1913	1913	1913	714	-77	0	31811	0	1788
FWD	76	650	542	542	542	13	-34	0	32353	0	1841
FWD	77	1811	2146	2146	2146	694	-34	0	34499	0	3389
FWD	78	5999	5764	5764	5764	641	0	0	40263		
FEC	73	4821	7214	7214	7214	2066	0	0	79483	0	3800
FEC	74	8372	6153	6153	6153	2349	600	126	83793	0	11300
FEC	75	8314	4751	4751	6801	2558	773	218	90594	0	13653
FEC	76	1051	2810	2810	2810	2645	678	132	93404	0	7033
FEC	77	5167	6582	6582	6582	2965	2054	-383	99936	0	24168
FEC	78	9150	13124	13124	13124	3673	3153	382	113060		
DTI	73	364	-2526	-2526	-2526	2066	0	0	62572	0	5295
DTI	74	2219	-2937	-2937	-2937	2070	0	-4154	61070	0	674
DTI	75	1052	-723	-723	-11717	2126	-25	-99	44766	0	364
DTI	76	-719	-1616	-1717	-1717	2231	-45	27	43049	0	964
DTI	77	2610	2259	2259	2259	1972	6	81	45303	0	2100
DTI	78	3792	3103	3103	3103	2124	-404	107	48411		
DTS	73	962	1009	1009	1009	504	0	0	13692	480	504
DTS	74	641	893	893	893	526	38	0	10574	720	0
DTS	75	403	477	477	489	530	17	0	10741	240	1316
DTS	76	920	874	874	874	536	127	0	11055	480	2012
DTS	77	916	818	818	818	583	257	0	11313	480	1409
DTS	78	1903	435	435	435	599	138	0	11428		
CV	73	329	-304	-304	-304	305	0	0	-25295	0	691
CV	74	1620	1050	1050	1478	328	0	0	-23817	0	3020
CV	75	159	-105	-105	-105	401	0	0	-23922	0	0
CV	76	331	-121	-121	-121	414	0	0	-24043	0	2344
CV	77	2201	1760	1760	1760	493	0	0	11760	0	1427

[illegible]	72	[illegible]	1786	[illegible]	[illegible]	1781	1781	0	0	30152		
[illegible]	73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1488	0	0	229980	0	6488
[illegible]	74	[illegible]	-7939	[illegible]	[illegible]	1546	0	44	-280047	0	6419
[illegible]	75	[illegible]	-7244	-7244	-7244	1734	0	61	-240291	0	7275
[illegible]	76	3812	-1738	-1738	-1738	4837	0	19	-249102	0	64130
[illegible]	77	5810	1711	1711	1711	4938	0	102	21711	0	17549
[illegible]	78	3994	7921	7921	7921	5210	0	179	333352		
KSI	73	6795	8942	8942	8942	4319	0	0	94302	0	314
KSI	74	9183	10745	10745	10745	4103	120	1248	88988	1541	1170
KSI	75	7431	8129	8129	8201	4082	160	1541	85343	1699	14200
KSI	76	7001	6889	2784	2784	4792	443	1413	84440	1687	2705
KSI	77	5006	6110	6110	6110	4830	21	-3048	82704	1687	3457
KSI	78	6348	7238	7238	7238	4979	-909	-22	88255		
PLE	73	11363	10478	10478	10478	7341	0	0	215221	4252	10791
PLE	74	12127	11939	11939	11939	7215	-500	-140	160603	4571	18960
PLE	75	7949	6179	6179	6179	7727	-1253	-996	160094	4606	32179
PLE	76	9482	6772	6772	6772	7955	-2299	-1539	163408	0	14610
PLE	77	8078	7154	7154	7154	7923	-1275	-847	164311	4252	17902
PLE	78	12180	7707	7707	7707	9003	-830	-1141	169081		
DH	73	1788	585	585	2410	2075	0	0	44846	1999	1178
DH	74	1903	990	990	990	2085	581	7	46040	0	1254
DH	75	-3923	-1697	-1697	-1697	2142	-941	-234	44361	0	4566
DH	76	-5584	-3576	-3576	-3576	2447	-915	-3	40785	0	13214
DH	77	-14307	-12646	-12646	-12023	2770	0	8	28757	0	1130
DH	78	-8420	-11648	-11648	-11648	2644	0	-1	17089		
SOU	73	71925	64818	66818	66818	35673	0	0	798606	30479	78296
SOU	74	80007	92849	92849	92849	33764	18197	22937	918064	35033	81333
SOU	75	85909	81096	81096	92596	35844	12328	1452	968060	37331	77234
SOU	76	72566	92549	92549	92549	38621	12540	1871	1084824	39822	71715
SOU	77	88101	110546	110546	110546	40503	14383	2778	1302780	44094	1090695
SOU	78	93608	131194	131194	131194	77701	17622	3457	1580574		
BLE	73	4742	7899	7899	5943	2587	0	0	64358	5620	0
BLE	74	7765	9836	9836	9836	2550	1769	0	80031	6720	4161
BLE	75	7749	9425	9425	10832	3123	4378	0	83566	7420	29107
BLE	76	6870	8044	8044	8044	3643	3093	0	89436	2420	8546
BLE	77	12010	13107	13107	13107	4011	4980	6089	106024	1420	37060
BLE	78	16573	16806	16806	16806	3750	4156	0	113409		
UP	73	151342	125724	125724	125724	64181	0	0	1504062	53235	0
UP	74	123691	99177	99177	99177	68620	30143	-12577	214037	61309	198072
UP	75	112872	83880	83880	83880	74102	31758	-22241	256714	65795	205856
UP	76	135790	98656	98656	106156	78425	15739	2051	1297075	65795	179948
UP	77	149754	116262	116262	116262	83458	39697	2199	1347542	65795	203837
UP	78	179842	141801	141801	141801	84654	14515	4312	2468416		
TPW	73	334	300	300	380	343	0	0	10308	450	0
TPW	74	506	575	575	507	359	17	0	9324	360	839
TPW	75	327	514	514	619	365	152	0	9763	180	424
TPW	76	350	631	631	694	359	193	0	10097	360	825
TPW	77	164	288	288	409	419	87	0	10526	180	0
TPW	78	-986	-1053	-1053	-1053	457	-408	0	9473		
NMP	73	143	667	667	667	294	0	0	-14057	0	0
NMP	74	-2966	1951	1951	1951	270	0	-62	-16925	0	820
NMP	75	-4326	-3923	-3923	-3923	293	114	-80	-19268	0	502
NMP	76	-3838	-2742	-2742	-2742	303	0	-1	-20537	0	136
NMP	77	-2889	-2680	-2680	-2680	313	-148	-92	-23214	953	119
NMP	78	-3748	-3263	-3263	-3263	304	0	0	-26585		
MKT	73	-2015	-3733	-3733	-8195	2309	0	0	-13048	0	0
MKT	74	-1583	-2540	-2540	-2540	2272	0	437	-11197	0	2795
MKT	75	-3902	-5310	-5310	-5310	2225	0	397	-20864	0	1183
MKT	76	-2733	-5764	-5764	-5764	2329	0	425	-27980	0	7749
MKT	77	2124	-5572	-5572	-5572	2440	0	453	-34912	0	6178

	78	6758	2405	2405	2405	2755	0	524	41[illegible]16			
	73	33834	37103	38797	38797	15712	0	0	952171	13884	0	
	74	34018	34647	34587	34587	14438	9741	709	381427	39462	56274	
	75	24259	26726	25616	25616	13877	7884	363	178764	35856	40257	
	76	41231	38782	38782	38782	20087	-48	513	293571	18175	28000	
	77	31754	30780	30780	30780	21168	14439	-21	293290	31641	34329	
	78	32719	32898	32898	32898	22282	2492	52	298832			
MP	73	49498	35475	25505	25505	22911	0	0	404816	10123	0	
MP	74	52803	59623	49722	49722	22904	4272	10293	682388	12895	55050	
MP	75	50147	56614	46715	46715	24856	-457	-15432	455042	13761	68174	
MP	76	64244	68696	68696	68696	30068	8481	14954	582717	15440	104287	
MP	77	134776	108882	108882	108882	44958	12298	-449	619916	21412	160757	
MP	78	135476	110867	101139	101139	14462	13790	2584	687884			
DMIR73		7713	9709	9709	11141	3151	0	0	107577	8100	0	
DMIR74		9889	11562	11562	11562	3654	1520	0	99084	13300	7274	
DMIR75		2932	3670	3670	3670	4856	0	0	88800	14700	14432	
DMIR76		2625	2858	2858	2858	3946	3034	0	85658	6000	9143	
DMIR77		-1869	-2861	-2861	-2861	4158	2379	0	77797	5000	17855	
DMIR78		5275	8415	6822	6822	4021	2747	0	83819			
DRSW73		16773	16902	16101	18051	4424	0	0	204125	13070	0	
DRSW74		18795	21300	20589	20589	6410	1884	3823	180449	10736	27333	
DRSW75		17389	14652	13947	13947	9231	3625	-263	186167	8230	30311	
DRSW76		17576	16603	16603	16603	9836	2725	395	194423	8346	6235	
DRSW77		21170	19493	19493	19493	10438	1922	432	205247	8669	20905	
DRSW78		24501	25018	24501	24501	11155	1561	578	220598			
TM	73	293	392	392	577	342	0	0	1846	0	0	
TM	74	1002	1481	1481	1481	264	99	0	8307	0	1388	
TM	75	569	913	913	913	321	146	0	4220	0	1246	
TM	76	-610	-102	-102	-102	364	148	0	4179	0	1145	
TM	77	15	262	262	262	342	142	0	4441	0	172	
TM	78	1759	2068	2068	2068	383	101	0	6509			
SP	73	77805	81758	81758	81758	72299	0	0	1553393	58943	0	
SP	74	80155	88232	88232	88232	73977	17093	-19621399511		162744	139390	
SP	75	53152	52627	52627	52627	76171	9585	9669145[illegible]945		15199	119494	
SP	76	49947	81263	81263	81263	77052	-2579	2405815412851		45597	68773	
SP	77	83725	79586	79586	79586	72145	21791	-2689155[illegible]383		64054	123111	
SP	78	84001	49369	49369	49369	82890	1635	-559015[illegible]5069				
SLSF73		17859	12881	11454	11454	12612	0	0	254178	6489	0	
SLSF74		21422	17742	16322	16322	12730	1940	1654	215616	6489	28176	
SLSF75		16104	6833	5418	6870	13757	1800	-800	217697	6489	24090	
SLSF76		22474	11956	11956	11956	14027	1485	143	226540	6515	34547	
SLSF77		28108	16715	16715	16716	14559	0	1432	184044	6549	58913	
SLSF78		38013	21967	20617	20617	17433	0	269	239078			
BNC	73	1052	21	21	21	444	0	0	5526	0	409	
BNC	74	187	414	414	414	431	0	0	5940	0	338	
BNC	75	1073	49	49	49	448	0	0	5989	0	1161	
BNC	76	943	28	28	28	452	0	0	6017	0	777	
BNC	77	992	582	582	582	415	0	0	6598	0	480	
PNC	78	1570	280	-838	-838	419	0	0	5760			
L.I	73	-73915	-77387	-77387	-77387	7447	0	0	153942	0	9908	
L.I	74	-108217	-109727	-109727	-109727	7650	0	0	140817	0	5157	
L.I	75	-128842	-128560	-128560	-128560	7068	0	0	129671	0	4781	
L.I	76	-119071	-120414	-120414	-120414	7257	0	0	106888	0	13490	
L.I	77	-121209	-121566	-121566	-121566	9270	0	0	102884	0	21538	
L.I	78	-44258	-49875	-49875	-49875	8804	0	0	55506			
YS	73	-150290	-120743	-120743	-120743	7905	0	0	251198	0	0	
YS	74	-194361	-207792	-207792	-151665	14736	0	0	99883	0	0	
YS	75	-156247	-137704	-137704	-124922	7617	0	0	-27089	0	0	
YS	76	-144417	-67481	-67481	-67481	7885	0	0	94570	0	0	
YS	77	-140871	-122297	-122297	-122297	6838	0	0	-216867	0	0	

[illegible] 73	[illegible]	115238	115238	115238	7000	0	0	101[illegible]		
[illegible] 73	2767	3210	3210	3713	1559	0	0	[illegible]	3100	1542
[illegible] 74	3431	4489	4489	[illegible]	1583	409	0	[illegible]	2000	2090
[illegible] 75	-51	481	481	774	1692	399	0	[illegible]	4402	5000
[illegible] 76	[illegible]	3556	3556	3556	1725	1525	0	[illegible]	1400	6508
[illegible] 77	2245	1935	1935	1935	2017	3220	0	[illegible]	3500	19344
[illegible] 78	4404	3708	3708	3708	2385	1291	0	47086		
TRRA73	-892	-2159	-2159	-2159	973	0	0	[illegible]	0	2465
TRRA74	-2434	-3900	-3900	[illegible]	899	0	0	[illegible]	0	2027
TRRA75	-2684	-4072	-4072	-4072	809	0	0	-1[illegible]	0	1221
TRRA76	2498	615	615	615	802	0	0	-1721	0	716
TRRA77	653	-856	-856	-856	788	0	0	-2080	0	300
TRRA78	1653	-359	-359	-359	795	0	0	-2439		
IHB 73	-507	623	623	623	743	0	0	18343	0	1068
IHB 74	-669	1747	1747	1747	748	-297	1	17757	0	0
IHB 75	-506	-978	-978	-978	764	-541	0	15779	0	1206
IHB 76	-900	-1131	-1131	-1131	802	-730	0	13345	0	1053
IHB 77	-3288	-3233	-3233	-3233	821	693	0	10611	0	237
IHB 78	860	1624	1624	1624	811	0	0	12235		
ALS 73	2713	2094	2094	2094	724	0	0	20456	0	786
ALS 74	2011	1501	1501	1501	752	529	0	19634	1000	1440
ALS 75	1966	1468	1468	1468	792	378	0	20102	1000	2372
ALS 76	2557	2019	2019	2019	855	272	0	20921	1200	1363
ALS 77	2380	1913	1913	1913	883	277	0	20134	2700	372
ALS 78	3816	3379	3379	3379	898	561	0	20313		

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(Railroad Dictionary)

BO	7	0	111	BALTIMORE & OHIO RR CO.
BAR	0	0	3	BANGOR & AROOSTOOK RR CO.
BLE	0	1	0	BESSEMER & LAKE ERIE RR CO.
BM	1	1	52	BOSTON & MAINE CORP.
CP	0	0	1	CANADIAN PACIFIC (IN MAINE)
CV	0	0	1	CENTRAL VERMONT RWY CO.
CO	5	14	88	CHESAPEAKE & OHIO RWY CO.
CIM	0	0	6	CHICAGO & ILLINOIS MIDLAND RWY CO.
CR	32	191/19		CONRAIL
DH	0	1	34	DELAWARE & HUDSON RWY CO.
DTS	1	0	0	DETROIT & TOLEDO SHORELINE RR CO.
DTI	1	0	18	DETROIT, TOLEDO & IRONTON RR CO.
EJE	1	2	74	ELGIN, JOLIET & EASTERN RWY CO.
GTW	0	1	87	GRAND TRUNK WESTERN RR CO.
ITC	0	1	1	ILLINOIS TERMINAL RR CO.
LI	1	1	14	LONG ISLAND RR CO.
MEC	0	2	19	MAINE CENTRAL RR CO.
NW	7	9	304	NORFOLK & WESTERN RWY CO.
PLE	0	1	65	PITTSBURGH & LAKE ERIE RR CO.
RFP	2	0	14	RICHMOND, FREDERICKSBURG & POTOMAC RR CO.
WM	1	0	0	WESTERN MARYLAND RWY CO.
CCO	0	1	12	CLINCHFIELD RR CO.
FEC	0	1	18	FLORIDA EAST COAST RWY CO.
GA	0	0	7	GEORGIA RR CO.
ICG	4	9	159	ILLINOIS CENTRAL GULF RR CO.
LN	4	2	147	LOUISVILLE & NASHVILLE RR CO.
SCL	3	6	154	SEABOARD COAST LINE RR CO.
SOU	8	3	189	SOUTHERN RY. SYSTEM
ATSF	4	7	130	ATCHISON, TOPEKA & SANTA FE RWY CO.
BN	10	17	515	BURLINGTON NORTHERN CO.
CNW	1	9	135	CHICAGO & NORTHWESTERN TRANSP. CO.
MILW	3	19	193	CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.
RI	2	7	144	CHICAGO, ROCK ISLAND & PACIFIC RR CO.
CS	0	0	13	COLORADO & SOUTHERN RWY CO.
DRGW	1	1	39	DENVER & RIO GRANDE WESTERN RR CO.
DMIR	0	1	24	DULUTH, MISSABE & IRON RANGE RWY CO.
DWP	0	0	0	DULUTH, WINNIPEG & PACIFIC RWY
FWD	0	1	6	FORT WORTH & DENVER RWY CO.
KCS	0	2	90	KANSAS CITY SOUTHERN RWY CO.
MKT	0	1	48	MISSOURI-KANSAS-TEXAS RR CO.
MP	3	5	329	MISSOURI PACIFIC RR CO.
NWP	0	0	9	NORTHWESTERN PACIFIC RR CO.
SLSF	2	1	92	ST. LOUIS-SAN FRANCISCO RWY CO.
SSW	1	0	68	ST. LOUIS SOUTHWESTERN RWY CO.
SOO	0	2	45	SOO LINE RR CO.
SP	8	20	526	SOUTHERN PACIFIC CO.
TM	0	0	0	TEXAS MEXICAN RWY CO.
TPW	0	1	0	TOLEDO, PEORIA & WESTERN RR CO.
UP	4	4	283	UNION PACIFIC RR CO.
WP	2	1	10	WESTERN PACIFIC RR CO.
ALS	1	0	21	ALTON & SOUTHERN RR
BRC	2	0	48	BELT RR CO. OF CHICAGO
IHB	1	1	105	INDIANA HARBOR BELT RR CO.
TRRA	1	1	62	TERMINAL RR ASSN. OF ST. LOUIS
UNR	1	0	124	UNION RR CO.
YS	1	0	0	YOUNGSTOWN & SOUTHERN RWY CO.

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Table 11

DEPRECIATION EXPENSE SUMMARY (1979 DOLLARS)
(DOLLARS IN THOUSANDS)

	BEFORE TAX				AFTER TAX			
	NOISE SOURCE				NOISE SOURCE			
RAILROAD	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	870.	0.	554.	1424.	400.	0.	255.	655.
BANGOR & AROOSTOOK RR CO.	0.	0.	14.	14.	0.	0.	6.	6.
BUFFENDO & LAKE ERIE RR CO.	0.	157.	0.	157.	0.	72.	0.	72.
BOSTON & MAINE CORP.	174.	157.	260.	591.	80.	72.	120.	272.
CANADIAN PACIFIC (IN MAINE)	0.	0.	7.	7.	0.	0.	3.	3.
CENTRAL VERMONT RWY CO.	0.	0.	7.	7.	0.	0.	3.	3.
CHESAPEAKE & OHIO RWY CO.	696.	1731.	438.	2864.	320.	796.	201.	1318.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	27.	27.	0.	0.	13.	13.
CONRAIL	4003.	2203.	8582.	14788.	1841.	1013.	3948.	6802.
DELAWARE & HUDSON RWY CO.	0.	157.	171.	328.	0.	72.	79.	151.
DETROIT & TOLEDO SHORELINE RR CO.	174.	0.	0.	174.	80.	0.	0.	80.
DETROIT, TOLEDO & IRONTON RR CO.	174.	0.	89.	263.	80.	0.	41.	121.
ELGIN, JOLIET & EASTERN RWY CO.	174.	315.	369.	858.	80.	145.	170.	395.
GRAND TRUNK WESTERN RR CO.	0.	157.	438.	595.	0.	72.	201.	274.
ILLINOIS TERMINAL RR CO.	0.	157.	7.	164.	0.	72.	3.	76.
LONG ISLAND RR CO.	174.	157.	68.	400.	80.	72.	31.	184.
MAINE CENTRAL RR CO.	0.	315.	96.	410.	0.	145.	44.	189.
NORFOLK & WESTERN RWY CO.	870.	1101.	1518.	3490.	400.	507.	698.	1605.
PITTSBURGH & LAKE ERIE RR CO.	0.	157.	321.	479.	0.	72.	148.	220.
RICHMOND, FREDERICKSBURG & POTOMAC R	174.	0.	68.	242.	80.	0.	31.	112.
WESTERN MARYLAND RWY CO.	174.	0.	0.	174.	80.	0.	0.	80.
CLINCHFIELD RR CO.	0.	157.	62.	219.	0.	72.	28.	101.
FLORIDA EAST COAST RWY CO.	0.	157.	62.	219.	0.	72.	28.	101.
GEORGIA RR CO.	0.	0.	34.	34.	0.	0.	16.	16.
ILLINOIS CENTRAL GULF RR CO.	522.	1101.	793.	2417.	240.	507.	365.	1112.
LOUISVILLE & NASHVILLE RR CO.	522.	315.	732.	1569.	240.	145.	337.	722.
SEABOARD COAST LINE RR CO.	348.	787.	766.	1901.	160.	362.	352.	874.
SOUTHERN RY. SYSTEM	1044.	315.	944.	2303.	480.	145.	434.	1059.
ATCHISON, TOPEKA & SANTA FE RWY CO.	522.	787.	650.	1958.	240.	362.	299.	901.
BURLINGTON NORTHERN CO.	1218.	2045.	2571.	5834.	560.	941.	1183.	2684.
CHICAGO & NORTHWESTERN TRANSP. CO.	174.	1101.	677.	1952.	80.	507.	311.	898.
CHICAGO, MILW., ST. PAUL & PACIFIC R	348.	2203.	968.	3515.	160.	1013.	444.	1617.
CHICAGO, ROCK ISLAND & PACIFIC RR CO	174.	787.	732.	1693.	80.	362.	337.	778.
COLORADO & SOUTHERN RWY CO.	0.	0.	62.	62.	0.	0.	28.	28.
DENVER & RIO GRANDE WESTERN RR CO.	174.	157.	191.	523.	80.	72.	88.	241.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	157.	123.	280.	0.	72.	57.	129.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	157.	27.	184.	0.	72.	13.	85.
KANSAS CITY SOUTHERN RWY CO.	0.	315.	451.	766.	0.	145.	208.	352.
MISSOURI-KANSAS-TEXAS RR CO.	0.	157.	239.	397.	0.	72.	110.	182.
MISSOURI PACIFIC RR CO.	348.	629.	1441.	2419.	160.	289.	755.	1205.
NORTHWESTERN PACIFIC RR CO.	0.	0.	48.	48.	0.	0.	22.	22.
ST. LOUIS-SAN FRANCISCO RWY CO.	174.	157.	459.	790.	80.	72.	211.	363.
ST. LOUIS SOUTHWESTERN RWY CO.	174.	0.	342.	516.	80.	0.	157.	237.
SOO LINE RR CO.	0.	315.	226.	540.	0.	145.	104.	249.
SOUTHERN PACIFIC CO.	1044.	2360.	2626.	6030.	480.	1086.	1208.	2774.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	157.	0.	157.	0.	72.	0.	72.
UNION PACIFIC RR CO.	522.	472.	1163.	2157.	240.	217.	535.	992.
WESTERN PACIFIC RR CO.	0.	157.	48.	205.	0.	72.	22.	94.
AITON & SOUTHERN RR	174.	0.	103.	277.	80.	0.	47.	127.
BELT RR CO. OF CHICAGO	174.	0.	239.	413.	80.	0.	110.	190.
INDIANA HARBOR BELT RR CO.	348.	157.	527.	1032.	160.	72.	242.	475.
TERMINAL RR ASSN. OF ST. LOUIS	174.	157.	308.	639.	80.	72.	142.	294.
UNION RR CO.	174.	0.	622.	796.	80.	0.	286.	366.
YOUNGSTOWN & SOUTHERN RWY CO.	174.	0.	0.	174.	80.	0.	0.	80.
TOTAL	16106.	23025.	31464.	69675.	7446.	10592.	14473.	32051.

Table 12

INVESTMENT TAX CREDIT SUMMARY (1979 DOLLARS)
(DOLLARS IN THOUSANDS) REPLACEMENT ASSUMPTION APPLIED

	NOISE SOURCE			
RAILROAD NAME	RETARDERS	LOAD CELL TEST SITES	SWITCHERS	TOTAL
BALTIMORE & OHIO RR CO.	195.	0.	64.	259.
BANGOR & AROOSTOOK RR CO.	0.	0.	2.	2.
BESSEMER & LAKE ERIE RR CO.	0.	10.	0.	10.
BOSTON & MAINE CORP.	39.	10.	30.	87.
CANADIAN PACIFIC (IN MAINE)	0.	0.	1.	1.
CENTRAL VERMONT RWY CO.	0.	0.	1.	1.
CHESAPEAKE & OHIO RWY CO.	156.	201.	51.	409.
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	3.	3.
CONRAIL	896.	256.	994.	2146.
DELAWARE & HUDSON RWY CO.	0.	10.	20.	30.
DETROIT & TOLEDO SHORELINE RR CO.	39.	0.	0.	39.
DETROIT, TOLEDO & IRONTON RR CO.	39.	0.	10.	49.
ELGIN, JOLIET & EASTERN RWY CO.	39.	37.	43.	119.
GRAND TRUNK WESTERN RR CO.	0.	10.	51.	69.
ILLINOIS TERMINAL RR CO.	0.	10.	1.	19.
LONG ISLAND RR CO.	39.	10.	0.	65.
MAINE CENTRAL RR CO.	0.	37.	11.	48.
NORFOLK & WESTERN RWY CO.	195.	128.	176.	499.
PITTSBURGH & LAKE ERIE RR CO.	0.	10.	37.	56.
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	39.	0.	8.	47.
WESTERN MARYLAND RWY CO.	39.	0.	0.	39.
CLINCHFIELD RR CO.	0.	18.	7.	25.
FLORIDA EAST COAST RWY CO.	0.	18.	7.	25.
GEORGIA RR CO.	0.	0.	4.	4.
ILLINOIS CENTRAL GULF RR CO.	117.	128.	92.	337.
LOUISVILLE & NASHVILLE RR CO.	117.	37.	85.	230.
SEABOARD COAST LINE RR CO.	78.	91.	89.	258.
SOUTHERN RY. SYSTEM	234.	37.	109.	380.
ATCHISON, TOPEKA & SANTA FE RWY CO.	117.	91.	75.	284.
BURLINGTON NORTHERN CO.	273.	238.	298.	808.
CHICAGO & NORTHWESTERN TRANSP. CO.	39.	128.	78.	245.
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	78.	256.	112.	446.
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	39.	91.	85.	215.
COLORADO & SOUTHERN RWY CO.	0.	0.	7.	7.
DENVER & RIO GRANDE WESTERN RR CO.	39.	18.	22.	79.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	18.	14.	33.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.
FORT WORTH & DENVER RWY CO.	0.	18.	3.	21.
KANSAS CITY SOUTHERN RWY CO.	0.	37.	52.	89.
MISSOURI-KANSAS-TEXAS RR CO.	0.	18.	28.	46.
MISSOURI PACIFIC RR CO.	78.	73.	190.	341.
NORTHWESTERN PACIFIC RR CO.	0.	0.	6.	6.
ST. LOUIS-SAN FRANCISCO RWY CO.	39.	18.	53.	110.
ST. LOUIS SOUTHWESTERN RWY CO.	39.	0.	40.	79.
SCO LINE RR CO.	0.	37.	26.	63.
SOUTHERN PACIFIC CO.	234.	274.	304.	812.
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.
TOLEDO, PEORIA & WESTERN RR CO.	0.	10.	0.	10.
UNION PACIFIC RR CO.	117.	55.	135.	306.
WESTERN PACIFIC RR CO.	0.	10.	6.	24.
ALTON & SOUTHERN RR	39.	0.	12.	51.
BELT RR CO. OF CHICAGO	39.	0.	28.	67.
INDIANA HARBOR BELT RR CO.	78.	18.	61.	157.
TERMINAL RR ASSN. OF ST. LOUIS	39.	18.	36.	93.
UNION RR CO.	39.	0.	72.	111.
YOUNGSTOWN & SOUTHERN RWY CO.	39.	0.	0.	39.
TOTAL	3622.	2561.	3644.	9827.

Table 13

SUMMARY OF NET PRESENT VALUE OF ABATEMENT CASH FLOW
(DOLLARS IN THOUSANDS)

RAILROAD NAME	NOISE SOURCE NPV OF INCREMENTAL ABATEMENT CASH FLOW: RETARDERS	LOCS	SWITCHERS	TOTAL	NPV OF CASH FLOWS WITH ABATEMENT
BALTIMORE & OHIO RR CO.	1716.	0.	1721.	3436.	-49656.*
BANGOR & AROOSTOOK RR CO.	0.	0.	42.	42.	-20757.*
BUFFALO & LAKE ERIE RR CO.	0.	110.	0.	110.	84700.
BOSTON & MAINE CORP.	343.	110.	807.	1260.	-143350.*
CANADIAN PACIFIC (IN MAINE)	0.	0.	21.	21.	-2277.*
CENTRAL VERMONT RWY CO.	0.	0.	21.	21.	N/A
CHESAPEAKE & OHIO RWY CO.	1372.	1293.	1360.	4025.	-41810.*
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.	0.	85.	85.	4051.
CONRAIL	1891.	646.	26661.	36199.	N/A
DELAWARE & HUDSON RWY CO.	0.	110.	531.	649.	-99407.*
DETROIT & TOLEDO SHORELINE RR CO.	343.	0.	0.	343.	132.
DETROIT, TOLEDO & IRONTON RR CO.	343.	0.	276.	619.	-74397.*
ELGIN, JOLIET & EASTERN RWY CO.	343.	235.	1147.	1725.	107631.
GRAND TRUNK WESTERN RR CO.	0.	110.	1360.	1477.	N/A
ILLINOIS TERMINAL RR CO.	0.	110.	21.	139.	-8344.*
LONG ISLAND RR CO.	343.	110.	212.	673.	-1519668.*
MAINE CENTRAL RR CO.	0.	235.	297.	533.	-15901.*
NORFOLK & WESTERN RWY CO.	1716.	323.	4746.	7255.	539073.
PITTSBURGH & LAKE ERIE RR CO.	0.	110.	998.	1116.	-62044.*
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	343.	0.	212.	556.	51522.
WESTERN MARYLAND RWY CO.	343.	0.	0.	343.	-12296.*
CLINCHFIELD RR CO.	0.	110.	191.	309.	N/A
FLORIDA EAST COAST RWY CO.	0.	110.	191.	309.	20523.
GEORGIA RR CO.	0.	0.	106.	106.	N/A
ILLINOIS CENTRAL GULF RR CO.	1029.	823.	2464.	4317.	480018.*
LOUISVILLE & NASHVILLE RR CO.	1029.	235.	2273.	3538.	-253584.*
SEABOARD COAST LINE RR CO.	686.	580.	2379.	3653.	-274474.*
SOUTHERN PAC. SYSTEM	2059.	235.	2932.	5225.	252260.
ATCHISON, TOPEKA & SANTA FE RWY CO.	1029.	580.	2010.	3635.	-235737.*
BURLINGTON NORTHERN CO.	2402.	1529.	7288.	1918.	-951081.*
CHICAGO & NORTHWESTERN TRANSP. CO.	343.	823.	2103.	3269.	-76764.*
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	686.	1646.	2995.	5320.	-650083.*
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	343.	588.	2273.	3204.	-504842.*
COLORADO & SOUTHERN RWY CO.	0.	0.	191.	191.	-45051.*
DENVER & RIO GRANDE WESTERN RR CO.	343.	110.	595.	1056.	77510.
DULUTH, MISSABE & IRON RANGE RWY CO.	0.	110.	382.	500.	6981.
DULUTH, WINNIPEG & PACIFIC RWY	0.	0.	0.	0.	61207.
FORT WORTH & DENVER RWY CO.	0.	110.	85.	203.	-10937.*
KANSAS CITY SOUTHERN RWY CO.	0.	235.	1402.	1637.	-33265.*
MISSOURI-KANSAS-TEXAS RR CO.	0.	110.	744.	861.	N/A
MISSOURI PACIFIC RR CO.	686.	470.	5099.	6255.	452107.
NORTHWESTERN PACIFIC RR CO.	0.	0.	149.	149.	N/A
ST. LOUIS-SAN FRANCISCO RWY CO.	343.	110.	1423.	1884.	-12269.*
ST. LOUIS SOUTHWESTERN RWY CO.	343.	0.	1062.	1405.	245090.
COO LINE RR CO.	0.	235.	701.	936.	101157.
SOUTHERN PACIFIC CO.	2059.	1764.	8150.	11980.	-450151.*
TEXAS MEXICAN RWY CO.	0.	0.	0.	0.	5395.
TOLEDO, PEORIA & WESTERN RR CO.	0.	110.	0.	110.	-5080.*
UNION PACIFIC RR CO.	1029.	353.	3611.	4994.	-739933.*
WESTERN PACIFIC RR CO.	0.	110.	149.	266.	-322955.*
ALTON & SOUTHERN RR	343.	0.	319.	662.	12330.
BELT RR CO. OF CHICAGO	343.	0.	744.	1087.	-6867.*
INDIANA HARBOR BELT RR CO.	686.	118.	1636.	2440.	-22508.*
TERMINAL RR ASSN. OF ST. LOUIS	343.	118.	956.	1417.	-39698.*
UNION RR CO.	343.	0.	1933.	2276.	7711.
YOUNGSTOWN & SOUTHERN RWY CO.	343.	0.	0.	343.	N/A
TOTAL	31909.	16462.	97743.	146113.	-5057390.

* - VALUE LESS THAN OR EQUAL TO ZERO

Table 14

RAILROAD COMPANIES WITH POSITIVE NET PRESENT VALUE

RAILROAD NAME	NET PRESENT VALUE
BESSEMER & LAKE ERIE RR CO.	84700.00
CHICAGO & ILLINOIS MIDLAND RWY CO.	4050.89
DETROIT & TOLEDO SHORELINE RR CO.	131.74
ELGIN, JOLIET & EASTERN RWY CO.	107630.50
NORFOLK & WESTERN RWY CO.	539073.19
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	51521.83
FLORIDA EAST COAST RWY CO.	20523.28
SOUTHERN RY. SYSTEM	252288.19
DENVER & RIO GRANDE WESTERN RR CO.	77518.25
DULUTH, MISSABE & IRON RANGE RWY CO.	6980.84
DULUTH, WINNIPEG & PACIFIC RWY	61207.11
MISSOURI PACIFIC RR CO.	452106.87
ST. LOUIS SOUTHWESTERN RWY CO.	245897.75
SOO LINE RR CO.	101156.62
TEXAS MEXICAN RWY CO.	9395.00
ALTON & SOUTHERN RR	12338.09
UNION RR CO.	7711.01

Table 15

RAILROAD COMPANIES WITH NEGATIVE OR ZERO NET PRESENT VALUE

RAILROAD NAME	NET PRESENT VALUE
BALTIMORE & OHIO RR CO.	-49655.52
BANGOR & AROOSTOOK RR CO.	-28757.34
BOSTON & MAINE CORP.	-143350.31
CANADIAN PACIFIC (IN MAINE)	-2277.24
CHESAPEAKE & OHIO RWY CO.	-41809.77
DELAWARE & HUDSON RWY CO.	-99486.87
DETROIT, TOLEDO & IRONTON RR CO.	-74397.00
ILLINOIS TERMINAL RR CO.	-8344.13
LONG ISLAND RR CO.	-1519668.00
MAINE CENTRAL RR CO.	-15980.69
PITTSBURGH & LAKE ERIE RR CO.	-62044.24
WESTERN MARYLAND RWY CO.	-12246.35
ILLINOIS CENTRAL GULF RR CO.	-480817.75
LOUISVILLE & NASHVILLE RR CO.	-253983.94
SEABOARD COAST LINE RR CO.	-274473.87
ATCHISON, TOPEKA & SANTA FE RWY CO.	-235737.37
BURLINGTON NORTHERN CO.	-851840.56
CHICAGO & NORTHWESTERN TRANSP. CO.	-76763.87
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	-658062.87
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	-504842.12
COLORADO & SOUTHERN RWY CO.	-45050.96
FORT WORTH & DENVER RWY CO.	-18936.50
KANSAS CITY SOUTHERN RWY CO.	-33265.46
ST. LOUIS-SAN FRANCISCO RWY CO.	-12268.91
SOUTHERN PACIFIC CO.	-450151.06
TOLEDO, PEORIA & WESTERN RR CO.	-5879.60
UNION PACIFIC RR CO.	-739931.50
WESTERN PACIFIC RR CO.	-322955.00
BELT RR CO. OF CHICAGO	-6466.65
INDIANA HARBOR BELT RR CO.	-22507.91
TERMINAL RR ASSN. OF ST. LOUIS	-39695.91

Table 16

RAILROAD COMPANIES WITH .1 >= RATIO > 0

RAILROAD NAME	RATIO
DETROIT & TOLEDO SHORELINE RR CO.	0.01
DULUTH, MISSABE & IRON RANGE RWY CO.	0.08

Table 17

RAILROAD COMPANIES WI' H RATIO > .1

RAILROAD NAME	RATIO
BESSEMER & LAKE ERIE RR CO.	0.91
CHICAGO & ILLINOIS MIDLAND RWY CO.	0.22
ELGIN, JOLIET & EASTERN RWY CO.	1.45
NORFOLK & WESTERN RWY CO.	0.49
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	0.67
FLORIDA EAST COAST RWY CO.	0.22
SOUTHERN RY. SYSTEM	0.25
DENVER & RIO GRANDE WESTERN RR CO.	0.39
DULUTH, WINNIPEG & PACIFIC RWY	3.87
MISSOURI PACIFIC RR CO.	0.86
ST. LOUIS SOUTHWESTERN RWY CO.	0.83
SOO LINE RR CO.	0.62
TEXAS MEXICAN RWY CO.	2.30
ALTON & SOUTHERN RR	0.61
UNION RR CO.	0.16

Table 18

RAILROAD COMPANIES WITH RATIO <= 0

RAILROAD NAME	RATIO
BALTIMORE & OHIO RR CO.	-0.07
BANGOR & AROOSTOOK RR CO.	-0.77
BOSTON & MAINE CORP.	-2.54
CANADIAN PACIFIC (IN MAINE)	-1.01
CHESAPEAKE & OHIO RWY CO.	-0.06
DELAWARE & HUDSON RWY CO.	-2.67
DETROIT, TOLEDO & IRONTON RR CO.	-1.46
ILLINOIS TERMINAL RR CO.	-0.71
LONG ISLAND RR CO.	-13.23
MAINE CENTRAL RR CO.	-0.40
PITTSBURGH & LAKE ERIE RR CO.	-0.36
WESTERN MARYLAND RWY CO.	-0.14
ILLINOIS CENTRAL GULF RR CO.	-0.70
LOUISVILLE & NASHVILLE RR CO.	-0.48
SEABOARD COAST LINE RR CO.	-0.25
ATCHISON, TOPEKA & SANTA FE RWY CO.	-0.17
BURLINGTON NORTHERN CO.	-0.49
CHICAGO & NORTHWESTERN TRANSP. CO.	-3.60
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	-2.21
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	-3.22
COLORADO & SOUTHERN RWY CO.	-0.62
FORT WORTH & DENVER RWY CO.	-0.56
KANSAS CITY SOUTHERN RWY CO.	-0.27
ST. LOUIS-SAN FRANCISCO RWY CO.	-0.06
SOUTHERN PACIFIC CO.	-0.30
TOLEDO, PEORIA & WESTERN RR CO.	-0.59
UNION PACIFIC RR CO.	-0.29
WESTERN PACIFIC RR CO.	-2.98
BELT RR CO. OF CHICAGO	-1.08
INDIANA HARBOR BELT RR CO.	-1.51
TERMINAL RR ASSN. OF ST. LOUIS	-38.53

Table 19

RAILROAD COMPANIES WITH POSITIVE FUTURE CASH FLOW

RAILROAD NAME	FUTURE CASH FLOW
BALTIMORE & OHIO RR CO.	643733.37
BANGOR & AROOSTOCK RR CO.	8807.81
BESSEMER & LAKE ERIE RR CO.	177621.62
CENTRAL VERMONT RWY CO.	9226.13
CHESAPEAKE & OHIO RWY CO.	612287.91
CHICAGO & ILLINOIS MIDLAND RWY CO.	22489.36
DETROIT & TOLEDO SHORELINE RR CO.	11775.34
ELGIN, JOLIET & EASTERN RWY CO.	183572.81
ILLINOIS TERMINAL RR CO.	3610.03
MAINE CENTRAL RR CO.	24988.23
NORFOLK & WESTERN RWY CO.	1646700.00
PITTSBURGH & LAKE ERIE RR CO.	111524.81
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	129464.00
WESTERN MARYLAND RWY CO.	74934.56
FLORIDA EAST COAST RWY CO.	114210.37
ILLINOIS CENTRAL GULF RR CO.	211893.75
LOUISVILLE & NASHVILLE RR CO.	280082.12
SEABOARD COAST LINE RR CO.	832552.56
SOUTHERN RY. SYSTEM	1253665.00
ATCHISON, TOPEKA & SANTA FE RWY CO.	1132298.00
BURLINGTON NORTHERN CO.	911217.44
COLORADO & SOUTHERN RWY CO.	27766.23
DENVER & RIO GRANDE WESTERN RR CO.	277075.31
DULUTH, MISSABE & IRON RANGE RWY CO.	97928.31
DULUTH, WINNIPEG & PACIFIC RWY	77035.44
FORT WORTH & DENVER RWY CO.	14913.89
KANSAS CITY SOUTHERN RWY CO.	92510.94
MISSOURI PACIFIC RR CO.	982705.81
ST. LOUIS-SAN FRANCISCO RWY CO.	203640.62
ST. LOUIS SOUTHWESTERN RWY CO.	544778.87
SCC LINE RR CO.	264058.87
SOUTHERN PACIFIC CO.	1069674.00
TEXAS MEXICAN RWY CO.	13478.66
TOLEDO, PEORIA & WESTERN RR CO.	4153.15
UNION PACIFIC RR CO.	1779736.00
ALTON & SOUTHERN RR	33259.86
BELT RR CO. OF CHICAGO	591.66
UNION RR CO.	57822.81

Table 20

RAILROAD COMPANIES WITH NEGATIVE FUTURE CASH FLOW

RAILROAD NAME	FUTURE CASH FLOW
BOSTON & MAINE CORP.	-85635.25
CANADIAN PACIFIC (IN MAINE)	0.0
CONRAIL	-8082216.00
DELAWARE & HUDSON RWY CO.	-61525.29
DETROIT, TOLEDO & IRONTON RR CO.	-22915.12
GRAND TRUNK WESTERN RR CO.	-43613.84
LONG ISLAND RR CO.	-1404094.00
CLINCHFIELD RR CO.	0.0
GEORGIA RR CO.	0.0
CHICAGO & NORTHWESTERN TRANSP. CO.	-52165.12
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	-355566.81
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	-344808.37
MISSOURI-KANSAS-TEXAS RR CO.	-63406.58
NORTHWESTERN PACIFIC RR CO.	-22762.58
WESTERN PACIFIC RR CO.	-214292.75
INDIANA HARBOR BELT RR CO.	-5140.01
TERMINAL RR ASSN. OF ST. LOUIS	-37248.91
YOUNGSTOWN & SOUTHERN RWY CO.	-1095187.00

Table 21

RAILROAD COMPANIES WITH POSITIVE NET INVESTMENT

RAILROAD NAME	NET INVESTMENT
BALTIMORE & OHIO RR CO.	689952.62
BANGOR & AROOSTOCK RR CO.	37522.66
BESSEMER & LAKE ERIE RR CO.	92804.00
BOSTON & MAINE CORP.	56447.16
CANADIAN PACIFIC (IN MAINE)	2256.00
CHESAPEAKE & OHIO RWY CO.	650072.12
CHICAGO & ILLINOIS MIDLAND RWY CO.	18354.00
DELAWARE & HUDSON RWY CO.	37313.00
DETROIT & TOLEDO SHORELINE RR CO.	11300.50
DETROIT, TOLEDO & IRONTON RR CO.	50862.66
ELGIN, JOLIET & EASTERN RWY CO.	74216.81
ILLINOIS TERMINAL RR CO.	11815.33
LONG ISLAND RR CO.	114901.31
MAINE CENTRAL RR CO.	40436.33
NORFOLK & WESTERN RWY CO.	1100372.00
PITTSBURGH & LAKE ERIE RR CO.	172453.00
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	77386.62
WESTERN MARYLAND RWY CO.	86837.81
FLORIDA EAST COAST RWY CO.	93378.31
ILLINOIS CENTRAL GULF RR CO.	688394.81
LOUISVILLE & NASHVILLE RR CO.	530528.50
SEABOARD COAST LINE RR CO.	1103373.00
SOUTHERN RY. SYSTEM	996151.31
ATCHISON, TOPEKA & SANTA FE RWY CO.	1364400.00
BURLINGTON NORTHERN CO.	1751140.00
CHICAGO & NORTHWESTERN TRANSP. CO.	21329.50
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	297168.31
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	156829.62
COLORADO & SOUTHERN RWY CO.	72626.00
DENVER & RIO GRANDE WESTERN RR CO.	198501.50
DULUTH, MISSABE & IRON RANGE RWY CO.	90447.50
DULUTH, WINNIPEG & PACIFIC RWY	15828.33
FORT WORTH & DENVER RWY CO.	33647.83
KANSAS CITY SOUTHERN RWY CO.	124139.12
MISSOURI PACIFIC RR CO.	524343.81
ST. LOUIS-SAN FRANCISCO RWY CO.	214025.50
ST. LOUIS SOUTHWESTERN RWY CO.	297475.81
SOO LINE RR CO.	161966.00
SOUTHERN PACIFIC CO.	1507845.00
TEXAS MEXICAN RWY CO.	4083.67
TOLEDO, PEORIA & WESTERN RR CO.	9915.16
UNION PACIFIC RR CO.	2514674.00
WESTERN PACIFIC RR CO.	108396.00
ALTON & SOUTHERN RR	20260.00
BELT RR CO. OF CHICAGO	5971.66
INDIANA HARBOR BELT RR CO.	14928.33
TERMINAL RR ASSN. OF ST. LOUIS	1030.33
UNION RR CO.	47835.50

Table 22

RAILROAD COMPANIES WITH NEGATIVE NET INVESTMENT

RAILROAD NAME	NET INVESTMENT
CENTRAL VERMONT RWY CO.	-9142.50
CONRAIL	-73919.31
GRAND TRUNK WESTERN RR CO.	-115541.12
CLINCHFIELD RR CO.	0.0
GEORGIA RR CO.	0.0
MISSOURI-KANSAS-TEXAS RR CO.	-24144.83
NORTHWESTERN PACIFIC RR CO.	-20098.00
YOUNGSTOWN & SOUTHERN RWY CO.	-14804.16

Table 23

RAILROAD COMPANIES WITH POSITIVE NET PRESENT VALUE
OF FUTURE CASH FLOWS BEFORE ABATEMENT

RAILROAD NAME	NET PRESENT VALUE
BESSEMER & LAKE ERIE RR CO.	84817.62
CENTRAL VERMONT RWY CO.	18368.63
CHICAGO & ILLINOIS MIDLAND RWY CO.	4135.86
DETROIT & TOLEDO SHORELINE RR CO.	474.84
ELGIN, JOLIET & EASTERN RWY CO.	109356.00
GRAND TRUNK WESTERN RR CO.	71927.25
NORFOLK & WESTERN RWY CO.	546328.00
RICHMOND, FREDERICKSBURG & POTOMAC RR CO.	52077.37
FLORIDA EAST COAST RWY CO.	20832.06
SOUTHERN RY. SYSTEM	257513.69
DENVER & RIO GRANDE WESTERN RR CO.	78573.81
DULUTH, MISSABE & IRON RANGE RWY CO.	7480.81
DULUTH, WINNIPEG & PACIFIC RWY	61207.11
MISSOURI PACIFIC RR CO.	458362.00
ST. LOUIS SOUTHWESTERN RWY CO.	247303.06
SOO LINE RR CO.	102092.87
TEXAS MEXICAN RWY CO.	9395.00
ALTON & SOUTHERN RR	12999.86
UNION RR CO.	9987.31

Table 24

RAILROAD COMPANIES WITH NEGATIVE NET PRESENT VALUE
OF FUTURE CASH FLOWS BEFORE ABATEMENT

RAILROAD NAME	NET PRESENT VALUE
BALTIMORE & OHIO RR CO.	-46219.25
BANGOR & AROOSTOOK RR CO.	-28714.85
BOSTON & MAINE CORP.	-142082.37
CANADIAN PACIFIC (IN MAINE)	-2256.00
CHESAPEAKE & OHIO RWY CO.	-37734.31
DELAWARE & HUDSON RWY CO.	-98838.25
DETROIT, TOLEDO & IRONTON RR CO.	-73777.75
ILLINOIS TERMINAL RR CO.	-8205.30
LONG ISLAND RR CO.	-1518995.00
MAINE CENTRAL RR CO.	-15448.11
PITTSBURGH & LAKE ERIE RR CO.	-60928.19
WESTERN MARYLAND RWY CO.	-11903.25
ILLINOIS CENTRAL GULF RR CO.	-476501.06
LOUISVILLE & NASHVILLE RR CO.	-250446.37
SEABOARD COAST LINE RR CO.	-270820.44
ATCHISON, TOPEKA & SANTA FE RWY CO.	-232102.00
BURLINGTON NORTHERN CO.	-839922.56
CHICAGO & NORTHWESTERN TRANSP. CO.	-73494.56
CHICAGO, MILW., ST. PAUL & PACIFIC RR CO.	-652735.12
CHICAGO, ROCK ISLAND & PACIFIC RR CO.	-501638.00
COLORADO & SOUTHERN RWY CO.	-44859.77
FORT WORTH & DENVER RWY CO.	-18733.94
KANSAS CITY SOUTHERN RWY CO.	-31628.19
ST. LOUIS-SAN FRANCISCO RWY CO.	-10384.37
SOUTHERN PACIFIC CO.	-438171.00
TOLEDO, PEORIA & WESTERN RR CO.	-5762.02
UNION PACIFIC RR CO.	-734938.00
WESTERN PACIFIC RR CO.	-322688.75
BELT RR CO. OF CHICAGO	-5380.01
INDIANA HARBOR BELT RR CO.	-20968.34
TERMINAL RR ASSN. OF ST. LOUIS	-38279.24

Table 25

RAILROADS AND EQUIPMENT FOR CASH FLOW ANALYSIS

			NOISE SOURCE		
RAILROAD NAME			RETARDERS	LOAD CELL TEST SITES	SWITCHERS
1	BO	BALTIMORE & OHIO RR CO.	7	0	156
2	BAR	BANGOR & AROOSTOOK RR CO.	0	0	3
3	BLE	BESSEMER & LAKE ERIE RR CO.	0	1	1
4	BM	BOSTON & MAINE CORP.	1	1	66
5	CP	CANADIAN PACIFIC (IN MAINE)	0	0	1
6	CV	CENTRAL VERMONT RWY CO.	0	0	7
7	CO	CHESAPEAKE & OHIO RWY CO.	5	14	90
8	CIM	CHICAGO & ILLINOIS MIDLAND RWY CO.	0	0	9
9	CR	CONRAIL	32	19	2021
10	DH	DELAWARE & HUDSON RWY CO.	0	1	42
11	DSS	DETROIT & TOLEDO SHORELINE RR CO.	1	0	7
12	DTI	DETROIT, TOLEDO & IRONTON RR CO.	1	0	23
13	EJE	ELGIN, JOLIET & EASTERN RWY CO.	1	2	63
14	GTW	GRAND TRUNK WESTERN RR CO.	0	1	29
15	ITC	ILLINOIS TERMINAL RR CO.	0	1	22
16	LI	LONG ISLAND RR CO.	1	1	10
17	MEC	MAINE CENTRAL RR CO.	0	2	19
18	NW	NORFOLK & WESTERN RWY CO.	7	9	387
19	PLE	PITTSBURGH & LAKE ERIE RR CO.	0	1	85
20	RFP	RICHMOND, FREDERICKSBURG & POTOMAC RR CO	2	0	16
21	WM	WESTERN MARYLAND RWY CO.	1	0	1
22	CCO	CLINCHFIELD RR CO.	0	1	13
23	FEC	FLORIDA EAST COAST RWY CO.	3	1	11
24	GA	GEORGIA RR CO.	3	0	8
25	ICG	ILLINOIS CENTRAL GULF RR CO.	4	2	182
26	LN	LOUISVILLE & NASHVILLE RR CO.	4	2	168
27	SCL	SEABOARD COAST LINE RR CO.	3	6	232
28	SOU	SOUTHERN RY. SYSTEM	8	3	213
29	ATSF	ATCHISON, TOPEKA & SANTA FE RWY CO.	4	7	178
30	BN	BURLINGTON NORTHERN CO.	10	17	562
31	CNW	CHICAGO & NORTHWESTERN TRANSP. CO.	1	9	183
32	MILW	CHICAGO, MILW., ST. PAUL & PACIFIC RR CO	3	19	234
33	RI	CHICAGO, ROCK ISLAND & PACIFIC RR CO.	2	7	168
34	CS	COLORADO & SOUTHERN RWY CO.	3	3	19
35	DRGW	DENVER & RIO GRANDE WESTERN RR CO.	1	1	35
36	DMIR	DULUTH, MISSABE & IRON RANGE RWY CO.	2	1	33
37	DWP	DULUTH, WINNIPEG & PACIFIC RWY	0	0	3
38	FWD	FORT WORTH & DENVER RWY CO.	0	1	7
39	KCS	KANSAS CITY SOUTHERN RWY CO.	0	2	84
40	MKT	MISSOURI-KANSAS-TEXAS RR CO.	0	1	51
41	MP	MISSOURI PACIFIC RR CO.	3	5	203
42	NWP	NORTHWESTERN PACIFIC RR CO.	0	0	13
43	SLSF	ST. LOUIS-SAN FRANCISCO RWY CO.	2	1	100
44	SWW	ST. LOUIS SOUTHWESTERN RWY CO.	1	0	77
45	SOO	SOO LINE RR CO.	0	2	60
46	SP	SOUTHERN PACIFIC CO.	0	20	593
47	TM	TEXAS MEXICAN RWY CO.	2	0	7
48	TPW	TOLEDO, PEORIA & WESTERN RR CO.	0	1	4
49	UP	UNION PACIFIC RR CO.	7	4	249
50	WP	WESTERN PACIFIC RR CO.	0	1	13
51	AIS	ALTON & SOUTHERN RR	1	0	3
52	BRC	BELT RR CO. OF CHICAGO	2	0	11
53	IHB	INDIANA HARBOR BELT RR CO.	3	1	22
54	TRRA	TERMINAL RR ASSN. OF ST. LOUIS	1	1	9
55	URR	UNION RR CO.	1	0	29
56	YS	YOUNGSTOWN & SOUTHERN RWY CO.	1	0	2

Overview of WYLBUR and the Cash Flow Model[1]

The Environmental Protection Agency's Washington Computer Center uses an operating system called WYLBUR in which files and programs can be edited at the terminal in an interactive mode. To run a program, it is placed in a queue with other programs (these are known as jobs) and the computer runs one at a time. The parameters and data used by the cash flow model can be changed interactively, but the model must be run in a batch mode. As a result, model parameters cannot be changed while the program is running.

An important feature of the WYLBUR system is the concept of a workspace. A workspace is a temporary storage area in which files can be edited. Only one file may be introduced into the workspace at a time. To preserve editions of a file permanently, the edited file must be saved by writing in onto the computer's disk. Saving an edited file destroys the old version if it is stored under the same name. Multiple versions of a file can be preserved, however, by saving each version under a different file name.

Because WYLBUR does not allow inputs to be changed interactively, a user must modify the key financial parameters before the program is run. These parameters are stored in a data file.

Accessing the Model

Instructions in Job Control Language which command the computer to run the Railroad Cash Flow Model would be contained in a program called

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[1]The computer access procedures described here were those in effect during the development and initial implementation of the model. Periodically those procedures change and the user should contact technical support and appropriate EPA personnel for assistance in using the system. JCL procedures should remain as they appear here regardless of changes to computer access.

"CN.EPAJHU.S2KC.CABOOSES". Once the program has been put up on the computer, it is accessed by logging onto the WYLBUR system of the EPA's Washington Computer Center (WCC).

Accessing the system consists of two steps:

1. getting through the telecommunications network to WYLBUR

2. logging on to WYLBUR

Step 1 is a fairly mechanical process and is described in flow chart form (see Figure 1).

Note: The flow chart is not foolproof. For example, if you can't get the high-frequency tone in two tries, you should try again using another telephone number.

Configuration of the computer terminal:

Main power switch: ON

Modem power switch (if separate): ON

Mode: HALF DUPLEX

Baud rate: 300

Terminal mode: LINE

NOTE: <CR> means carriage return.
Resp: means user response.

Step 2. If everything in Step 1 goes right, the following message is received:

INVALID SYSTEM

Resp: WYL<CR>[1]

READY TO WCC ON sss[2]

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[1]Log on to the WYLBUR system.

[2]'sss is the system number.

ILLEGAL TERMINAL TYPE

Resp: <CR>

MODEL 37/38 TELETYPE

WYLBUR SYSTEM AT COMNET PORT xx today date time[3]

Resp: USERID ? EPAIII<CR>[4]

Resp: ACCOUNT ? AAAA<CR>[5]

Resp: PASSWORD ? PPPPPPPP<CR>[6]

SPECIFY GLOBAL FORMAT FOR SAVE COMMANDS.

REPLY - DEFAULT, EDIT, TSO, CARD, OR PRINT

Resp: FORMAT? CARD<CR>[7]

COMMAND?

This ends Step 2.

Access to CN.EPAJHV.S2KC.CABOOSES may be obtained by typing:

USE $CN.EPAJHV.S2KC.CABOOSES<CR>

Note: If the computer responds by typing VOLUME? and you have typed the instruction properly, this means that the cash flow model is no longer available on-line. WCC has stored the cash flow software off-line because it has not been used in more than 2 months. The question VOLUME? asks where the software is located.

To run the cash flow model, type:

RUN NOTIFY<CR>

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[3]'xx' is the port number.
'today' is today's day of the week.
'date' is today's date.
'time' is the time you succeeded in logging on to WYLBUR.

[4]'EPAIII' is your userid — Check with your EPA project officer

[5]'AAAA' is your user account code — Check with your EPA project officer

[6]'PPPPPPPP' is your password — Check with your EPA project officer

[7]Choose one of the above formats

Notify instructs the computer to inform the user that the program has been run.

The computer will respond by typing:

XXXX IS YOUR JOB NUMBER.

where XXXX will be some three- or four-digit job number. Usually between 5 and 30 minutes pass before the program is run. To determine whether the program has been run yet, type:

LOC XXXX

where XXXX is your job number. If the computer responds:

JOB XX IN OUTPUT HOLD

then the job output is ready.

One can leave the system while waiting for the program to run. Instructions on how to leave the system are presented below.

Once the program has been run, one may fetch the output. This is done by typing

FETCH XXXX<CR>

where XXXX is the job number described above.

The computer will reply:

OK TO CLEAR?

This message asks whether the computer can empty the user's workspace to bring the job output in. In this manner, the system seeks to avoid destroying edited files one might wish to save.

The user should respond: YES<CR>

This will bring the cash flow output into the user's workspace.

To list the output, type:

LIST<CR>

The first XXX lines of output will be extraneous material generated by the computer and not relevant to the user of the model. To print out only the necessary output, type:

LIST XXX/XXXX CC UNN

which instructs the computer to print lines XXX to XXXX of the file, which includes all the relevant output. CC means to use the first character of each line as a carriage control. UNN means to print each line wilthout its WYLBUR-generated line number.

To leave the system, type:

CLEAR TEXT<CR>

which clears the user's workspace, and then type:

LOGOFF<CR>

which terminates contact with the system.

Then hang up the telephone.

The system editor can be used to modify any of the parameters or data that were described in the previous sections of this report. Each modification should be saved in a separate file for later reference. The user should refer to a standard WYLBUR manual for instructions on how to change data and vary parameters.

APPENDIX A

Railroad Cash Flow Model - User's Guide

The Railroad Cash Flow Model, called CABOOSES, was originally contained on the alpha system at COMNET. Subsequent changes to the EPA computer system require that any further use of CABOOSES be made on the EPA computer system now housed at Research Triangle Park and using the WYLBUR system. It is recommended that the user read and become familiar with the WYLBUR guide which will allow the preservation of the program and data files and the successful manipulation for policy analysis. Appendix A of this report contains a listing of the program and data files necessary to run the Cash Flow Model. Included in that Appendix are the following:

1. CABOOSES - the program which determines the cash flow analysis.
2. FACTORS - a file of parameters used to investigate alternative regulatory options.
3. RRDATA - the initial data base mostly made up of ICC data on specific railroads.
4. INDEX 1 - a railroad dictionary.

The section below presents an overview of WYLBUR and how to run the cash flow model once it has been put up on the system.[1]

[1]This documentation is standardized for all WYLBUR users and was taken from a document prepared by Energy Resources Co., Inc. of Cambridge, Massachussetts that provided software documentation of a different version of the railroad cash flow model that was based on the model explained in the present document.

LISTING OF THE DATA FILES

CABOOSES

(Program)

```
C     ... ... FORTRAN,BLOCKED,01-2004
C     ...UTP-LOCAL,SUBMEL,BEL,PRO...SNIDERHINMAN
      DIMENSION TTEMP(12),TEMP(3),NUMVAR(60,3)
      DIMENSION LIBRP(3),QU,SUM(60,3)
      DIMENSION RNDATA(60,6,10)
      DIMENSION PV(21),SUM1(3),SUM2(3),SUMFIX(2)
      DIMENSION JTEMP(21),TEMP(21),ITYPE(5,3)
      DIMENSION TOTAL1(4),TOTAL2(4)
      DIMENSION PVCAP(60,3),PVFOR(60),TCF(60)
      DIMENSION TXCRDT(60,21,3),CRAFTX(60,21,3),FIXLIF(6)
      DIMENSION DEPEXP(60,21,3)
      DIMENSION LIST1(60),LIST2(60),LIST3(60),LIST4(60)
      DIMENSION LIST5(60),LIST6(60),LIST7(60),LIST8(60)
      DIMENSION RNPV(60),AVGRTN(60)
      DIMENSION OSAFTX(60,21,3)
      DIMENSION FIX    (21,3,6),OMCOST(21,3,6),OUTSRV(21,3,6)
      DIMENSION PHASE1(21,3,6),PHASE2(21,3,6),PHASE3(21,3,6)
C
      INTEGER    OPTION,TABLE,FLAG1,FLAG2
C
      DATA        IBLANK /    4H    /
      DATA        IASTER /    4H*   /
      DATA        MARK4  /    4HN/A /
      DATA        ITYPE  /'RETA','RDER','S   ','    ','    ',
     *                    'LOAD',' CEL','L TE','S) S','TES',
     *                    'SWIT','CHER','S   ','    ','    '/
      DATA        FIXLIF  /10.0,50.0,50.0,10.0,4.0,40.0/
C
      COMMON     /BLOCKA/ I1(60),I2(60),I3(60),ILENTH,IFREE,NAMES(12,60)
C
C-----------------------------------------------------------------------
C     READ FACTORS FILE
C-----------------------------------------------------------------------
      READ (03,703)IRATE1
      READ (03,703)IRATE2
      READ (03,703)IRATE3
      READ (03,703)IRATE4
      READ (03,703)OPTION
      READ (03,703)FLAG1
      READ (03,703)FLAG2
      READ (03,703)NUMFIX
      READ (03,703)INCOME
      READ (03,703)NYEARS
      READ (03,700)FACTR1
      READ (03,700)FACTR2
       READ (03,700)FACTR3
       RATE1 =FLOAT(IRATE1) *.01
       RATE2 =FLOAT(IRATE2) * .01
       RATE3 =FLOAT(IRATE3) * .01
       RATE4 =FLOAT(IRATE4) * .01
       CALL READ(FIX    ,21,3,6)
       CALL READ(OMCOST,21,3,6)
       CALL READ(OUTSRV,21,3,6)
       CALL READ(PHASE1,21,3,6)
       CALL READ(PHASE2,21,3,6)
       CALL READ(PHASE3,21,3,6)
C-----------------------------------------------------------------------
C     READ AND STORE RAILROAD DICTIONARY
C
C     TABLE 2
```

```
1320 C
1340       TABLE=2
1360       WRITE(06,802)OPTION,TABLE
1380       WRITE(06,800)
1400       ILENTH=60
1420       ICOUNT=0
1440       CALL STORIV(I1,I2,I3,ILENTH,IFREE)
1460       WRITE(06,816)
1480       CALL IZERO(LTEMP,4)
1500    10 READ (01,701,END=12)ITEM,(KTEMP(I),I=1,3),ITEMP
1520       CALL ISTORE(&501,ITEM,I1,I2,I3,ILENTH,IFREE)
1540       ICOUNT=ICOUNT + 1
1560       CALL IFETCH(&502,ITEM,I1,I2,I3,ILENTH,INDEX)
1580       KTEMP(1)=INT(FLOAT(KTEMP(1)) * FACTR1 + .5)
1600       KTEMP(2)=INT(FLOAT(KTEMP(2)) * FACTR2 + .5)
1620       KTEMP(3)=INT(FLOAT(KTEMP(3)) * FACTR3 + .5)
1640       NUMYDS(INDEX,1)=KTEMP(1)
1660       NUMYDS(INDEX,2)=KTEMP(2)
1680       NUMYDS(INDEX,3)=KTEMP(3)
1700       CALL IADD(KTEMP,LTEMP,3)
1720       DO 11 I=1,12
1740             NAMES(I,INDEX)=ITEMP(I)
1760    11       CONTINUE
1780       WRITE(06,803)ICOUNT,ITEM,(ITEMP(I),I=1,10),KTEMP
1800       GO TO 10
1820    12 WRITE(06,817)LTEMP
1840 C-----------------------------------------------------------------
1860 C     READ RAILROAD DATA
1880 C-----------------------------------------------------------------
1900    13 READ (02,702,END=15)ITEM,IYEAR,(ITEMP(I),I=1,10)
1920       CALL IFETCH(&503,ITEM,I1,I2,I3,ILENTH,INDEX)
1940       IYR   =IYEAR - 72
1960       DO 14 I=1,10
1980             RRDATA(INDEX,IYR,I)=ITEMP(I)
2000    14       CONTINUE
2020       GO TO 13
2040 C-----------------------------------------------------------------
2060 C     DISPLAY INFLATION AND DISCOUNT FACTORS; COMPUTE PRESENT
2080 C     VALUE FACTORS AND PRESENT VALUE OF AN ANNUITY
2100 C
2120 C     TABLE 4
2140 C-----------------------------------------------------------------
2160    15 TABLE =4
2180       WRITE(06,802)OPTION,TABLE
2200       WRITE(06,804)IRATE1,IRATE2
2220       X     =(1.0 + RATE1) / (1.0 + RATE2)
2240       Y     =(1.0 + RATE2) / (1.0 + RATE1) - 1.0
2260       DO 16 I=1,21
2280             PV(I)=X ** (I - 1)
2300             J     =I + 1978
2320             WRITE(06,805)J,PV(I)
2340    16       CONTINUE
2360       PVIFA =(1.0 - (1.0 / ((1.0 + Y) ** 20))) / Y
2380       WRITE(06,806)PVIFA
2400 C-----------------------------------------------------------------
2420 C     CAPITAL EXPENDITURE SUMMARY
2440 C
2460 C     TABLE 8
2480 C-----------------------------------------------------------------
2500       TABLE =8
```

```
      WRITE(06,802)OPTION,TABLE
      WRITE(06,813)
      WRITE(06,807)
      CALL ZERO(OUTBUF,480)
      DO 20 I=1,ICOUNT
            DO 19 J=1,21
                  DO 18 K=1,3
                        SUMFIX(K)=0.0
                        DO 17 L=1,NUMFIX
                              SUMFIX(K)=SUMFIX(K) + FIX(J,K,L)
     *                                    * PHASE1(J,K,L) * NUMYUS(I,K)
   17                         CONTINUE
                        OUTBUF(I,K)=OUTBUF(I,K) + SUMFIX(K)
   18                   CONTINUE
   19             CONTINUE
   20       CONTINUE
      CALL TOTAL (OUTBUF,ICOUNT,3)
      CALL PRINT (DUMMY)
C-----------------------------------------------------------------------
C     INITIAL CAPITAL EXPENDITURE SUMMARY
C
C     TABLE 10
C-----------------------------------------------------------------------
      TABLE =10
      WRITE(06,802)OPTION,TABLE
      WRITE(06,815)
      WRITE(06,807)
      CALL ZERO(OUTBUF,480)
      DO 25 I=1,ICOUNT
            CALL ZERO(BUFR1,3)
            DO 24 J=1,21
                  IF(J .LT. 2 .OR. J .GT. 5)GO TO 24
                  DO 23 K=1,3
                        SUMFIX(K)=0.0
                        DO 22 L=1,NUMFIX
                              SUMFIX(K)=SUMFIX(K) + FIX(J,K,L)
     *                                    * PHASE1(J,K,L) * NUMYUS(I,K)
   22                         CONTINUE
                        OUTBUF(I,K)=OUTBUF(I,K) + SUMFIX(K)
   23                   CONTINUE
   24             CONTINUE
   25       CONTINUE
      CALL TOTAL(OUTBUF,ICOUNT,3)
      CALL PRINT(DUMMY)
C-----------------------------------------------------------------------
C     PRESENT VALUE OF CAPITAL EXPENDITURE SUMMARY
C
C     TABLE 9
C-----------------------------------------------------------------------
      TABLE =9
      WRITE(06,802)OPTION,TABLE
      WRITE(06,810)
      WRITE(06,807)
      CALL ZERO(OUTBUF,480)
      DO 30 I=1,ICOUNT
            DO 29 J=1,21
                  DO 28 K=1,3
                        SUMFIX(K)=0.0
                        DO 27 L=1,NUMFIX
                              SUMFIX(K)=SUMFIX(K) + FIX(J,K,L)
```

```
     *                                                  * PHASE1(J,K,L) * NUMYDS(I,K)
     *                                                  * PV(J)
   27                                  CONTINUE
                                 OUTBUF(I,K)=OUTBUF(I,K) + SUMFIX(K)
                                 PVCAP (I,K)=OUTBUF(I,K)
   28                            CONTINUE
   29                      CONTINUE
   30                 CONTINUE
      CALL TOTAL (OUTBUF,ICOUNT,3)
      CALL PRINT (DUMMY)
C-----------------------------------------------------------------------
C     INVESTMENT TAX CREDIT SUMMARY
C
C     TABLE 15
C-----------------------------------------------------------------------
      TABLE =15
      WRITE(06,802)OPTION,TABLE
      WRITE(06,814)
      WRITE(06,807)
      CALL ZERO(OUTBUF,480)
      DO 35 I=1,ICOUNT
            DO 34 J=1,21
                  DO 33 K=1,3
                        SUMFIX(K)=0.0
                        DO 32 L=1,NUMFIX
                              SUMFIX(K)=SUMFIX(K) + FIX(J,K,L)
     *                                          * PHASE1(J,K,L) * NUMYDS(I,K)
   32                         CONTINUE
                        TXCRDT(I,J,K)=SUMFIX(K) * RATE4
                        OUTBUF(I,K)=OUTBUF(I,K) + TXCRDT(I,J,K)
   33                   CONTINUE
   34              CONTINUE
   35         CONTINUE
      CALL TOTAL (OUTBUF,ICOUNT,3)
      CALL PRINT (DUMMY)
C-----------------------------------------------------------------------
C     PRESENT VALUE OF CAPITAL EXPENDITURE DETAIL
C
C     TABLE 7
C-----------------------------------------------------------------------
      TABLE =7
      IF(FLAG1 .EQ. 0)GO TO 41
      DO 40 I=1,ICOUNT
            WRITE(06,802)OPTION,TABLE
            WRITE(06,820)(NAMES(M,I),M=1,12)
            WRITE(06,822)(J,J=1979,1999)
            DO 38 K=1,3
                  IF(NUMYDS(I,K) .EQ. 0)GO TO 38
                  SUM   =0.0
                  DO 37 J=1,21
                        X      =0.0
                        DO 36 L=1,NUMFIX
                              X      =X + FIX(J,K,L) * PHASE1(J,K,L)
     *                                  * NUMYDS(I,K) * PV(J)
   36                         CONTINUE
                        SUM   =SUM + X
                        JTEMP(J)=INT(X + .5)
                        TEMP(J)=TEMP(J) + X
   37                   CONTINUE
                  ISUM  =INT(SUM + .5)
```