8106.0400 VALUATION.

Subpart 1. **In general.** The approaches to value that will be used in determining the estimated unit value of railroad operating property are cost, capitalized income, and stock and debt except as provided in subparts 4 and 6.

Subp. 2. **Cost approach to valuation.** The cost factor that will be considered in the railroad valuation method is the restated cost of the railroad system, plus the restated cost of construction work in progress on the assessment date. The railroad system shall be considered to be made up of the following STB accounts: all road and equipment accounts, including leased equipment accounts; all general expenditures; and other elements of investment and railroad property owned and leased to others as well as railroad property leased from others. Book depreciation and obsolescence shall be allowed as a deduction from the restated cost of the railroad's assets enumerated above. The original cost if known, and the annual lease payments of any leased operating property used by the railroad must be reported to the commissioner in conjunction with the annual railroad report. The commissioner shall incorporate the value of the leased property into the railroad's unit value utilizing this information.

Obsolescence will be calculated through the use of the "Blue Chip Method." This method compares the railroad being appraised with the best railroads in the country, the so-called blue chip railroads. Three indicators of obsolescence will be used. First, a five-year average rate of return will be calculated for the railroad under appraisal. This rate of return is computed by dividing the subject's annual net railroad operating income for each of the most recent five years preceding the assessment, by the railroad's total owned transportation property less recorded depreciation and amortization (net investment in railroad property) for each corresponding year. The resulting five rates of return are then averaged using a simple arithmetic average to arrive at a five-year average rate of return. An example of this computation is as follows:

XYZ Railroad

Year	Net Railroad Operating Income	Net Investment	Indicated Rate of Return
....	$2,700,000	$31,500,000	8.57%
....	$2,900,000	$32,000,000	9.06%
....	$3,100,000	$33,500,000	9.25%
....	$3,300,000	$34,000,000	9.70%
....	$3,530,700	$35,000,000	10.08%

	Total 46.66%
Five-year Average Rate of Return	9.33%

A study will then be made of the Class I railroads operating within the United States for the same five-year period using such informational sources as information compiled annually by the Wisconsin Department of Revenue known as the "Blue Chip" Obsolescence Study for STB Class I Railroads. Each year the railroad with the highest rate of return will be selected as the blue chip railroad. The resulting five rates of return will then be averaged to find the five-year average blue chip rate of return. An example of this process is as follows:

Year	Railroad	Rate of Return
....	ABC	11.50%
....	FGH	11.27%
....	JKL	10.57%
....	MNO	11.02%
....	XYZ	10.08%
		Total 54.44%
Five-year Average Blue Chip Rate of Return		10.89%

The five-year average rate of return for the railroad under appraisal will be compared to the five-year average blue chip rate of return. The deviation of the subject railroad's rate of return from the blue chip railroads' rate of return is the amount of indicated obsolescence. The following example illustrates the computation.

XYZ Railroad Five-Year Average Rate of Return	9.33%
Blue Chip Five-Year Average Rate of Return	10.89%
Indicated Obsolescence 1 - (9.33% ÷ 10.89%)	14.30%

Second, a five-year average freight traffic density indicator will be calculated. This indicator is calculated by dividing the subject railroad's ton miles of revenue freight for the most recent five years preceding the assessment by the average miles of road operated for each corresponding year. The resulting five indicators of freight traffic density are then averaged using a simple arithmetic average to arrive at a five-year average of freight traffic density. An example of this computation is as follows:

XYZ Railroad

Year	Ton Miles of Revenue Freight	Average Miles of Road Operated	Indicated Freight Traffic Density
....	1,300,000,000	575	2,260,000
....	1,402,500,000	550	2,550,000
....	1,200,000,000	550	2,180,000
....	1,100,000,000	500	2,200,000
....	1,000,000,000	500	2,000,000
			Total 11,190,000
Five-Year Average Freight Traffic Density			2,238,000

A five-year study is then made of the Class I railroads operating within the United States in the same manner and using the same sources as the rate of return study with the exception that this study concentrates on the freight traffic density achieved by the various Class I railroads. Each year the railroad with the highest freight traffic density will be selected as the blue chip railroad. The resulting five freight traffic density amounts will then be averaged to find the five-year average blue chip freight traffic density amount. An example of this process is as follows:

Year	Railroad	Freight Traffic Density
....	JKL	2,280,000
....	FGH	2,600,000
....	FGH	2,200,000
....	MNO	2,900,000
....	ABC	2,280,000
		Total 12,260,000
Five-year Average Blue Chip Freight Traffic Density		2,452,000

The five-year average freight traffic density indicator of the railroad under appraisal will be compared to the five-year average blue chip freight traffic density indicator. The deviation of the subject railroad's freight traffic density from the blue chip railroad's freight traffic density is the amount of indicated obsolescence. The following example illustrates this computation:

XYZ Railroad Five-Year Average Freight Traffic Density	2,238,000
Blue Chip Five-Year Average Freight Traffic Density	2,452,000
Indicated Obsolescence 1 - (2,238,000 ÷ 2,452,000)	8.70%

Third, a five-year average gross profit margin indicator will be calculated. This indicator measures a railroad's ability to convert gross revenue to net profit. This indicator is calculated by dividing net railway operating income, before federal and deferred taxes, by gross revenues. This calculation is performed using the subject railroad income figures for the most recent five years preceding the assessment. The resulting five indicators of gross profit margin are then averaged using a simple arithmetic average to arrive at a five-year average of gross profit margin. An example of this computation is as follows:

XYZ Railroad

Year	Net Railroad Operating Income Before Taxes	Gross Revenue	Indicated Gross Profit Margin
....	4,050,000	15,000,000	27.0%
....	4,350,000	15,800,000	27.5%
....	4,650,000	16,500,000	28.2%
....	4,950,000	17,300,000	28.6%
....	5,295,000	19,000,000	27.9%
			Total 139.2%
Five-Year Average Gross Profit Margin			27.8%

A study will then be made of the Class I railroads operating within the United States for the same five-year period in the same manner and using the same sources in the two previous five-year studies mentioned above. This study will look at the gross profit margin achieved by the various Class I railroads. Each year the railroad with the highest gross profit margin will be selected as the blue chip railroad. The resulting five gross profit margin percents will then be averaged to find a five-year average blue chip gross profit margin percentage. An example of this process is as follows:

Year	Railroad	Gross Profit Margin
....	ABC	30.0%
....	ABC	31.2%
....	JKL	29.9%
....	FGH	32.6%
....	JKL	33.3%
		Total 157.0%
Five-Year Average Blue Chip Gross Profit Margin		31.4%

The five-year average gross profit margin percent for the railroad under appraisal will be compared to the five-year average blue chip gross profit margin percent. The deviation of the subject railroad's gross profit margin from the blue chip railroad's gross profit margin is the amount of indicated obsolescence. The following example illustrates this computation:

XYZ Railroad Five-Year Average Gross Profit Margin	27.8%
Blue Chip Five-Year Average Gross Profit Margin	31.4%
Indicated Obsolescence 1 - (27.8% ÷ 31.4%)	11.5%

The obsolescence percentage indicated by this comparison of gross profit margins will be added to the obsolescence indicated by a comparison of rates of return and freight traffic density. The total of these three amounts will be averaged and this result will be the overall obsolescence percentage for the subject railroad. The following is an example of this computation:

XYZ Railroad

Obsolescence Indicated by Rate of Return Comparison	14.30%
Obsolescence Indicated by Freight Traffic Density Comparison	8.70%
Obsolescence Indicated by Gross Profit Margin Comparison	11.50%
	Total 34.50%
Average Obsolescence Percentage	11.50%

The obsolescence percentage will then be applied to the road accounts of the subject railroad, excluding land and personal property, after the allowance for depreciation has been deducted. In no instance shall the allowance for obsolescence exceed 50 percent. The following example illustrates how the cost indicator of value is computed and how the allowance for obsolescence is applied.

XYZ Railroad

Account	Amount
Road	$24,000,000
Equipment – Owned and Leased	9,000,000
Construction Work in Progress	4,500,000
General Expenditures	1,823,000
Gross Cost Indicator	39,323,000

Less Depreciation		10,000,000
Net Cost Indicator		$29,323,000
Road	$24,000,000	
Less Land and Personal Property	1,000,000	
Adjusted Road	23,000,000	
Adjusted Road		$23,000,000
Depreciation on Adjusted Road		7,000,000
Net Road		16,000,000
Obsolescence Percent		11.5%
Obsolescence Amount		1,840,000
Adjusted Cost Indicator of Value		$27,483,000

This cost indicator of value computed in accordance with this part will bear a weighting of 15 percent of the total unit value estimate of the railroad's property, except in the case of bankrupt railroads, or railroads with no income to be capitalized, as provided for in subpart 6, or railroads not meeting the criteria for use of the stock and debt approach to value as specified in subpart 4. These railroads will be valued using a 40 percent weighting for the cost indicator of value.

Subp. 3. **Income approach to valuation.** The income indicator of value will be calculated by averaging the net railway operating income, as defined by the STB, of the railroad for the most recent five years preceding the assessment. This average income shall be capitalized by applying to it a capitalization rate which will be computed by using the band of investment method. This method will consider:

A. the capital structure of railroads, including capital surplus and retained earnings;

B. the cost of debt or interest rate paying particular attention to imbedded debt of railroads;

C. the yield on preferred stock of railroads; and

D. the yield on common stock of railroads.

This rate will be calculated each year using the method described in this subpart.

An example of a computation of the capitalized income approach to value is as follows:

XYZ Railroad

Year	Net Railway Operating Income
....	$ 2,600,000
....	2,700,000
....	3,000,000
....	3,100,000
....	3,492,500
Total	$14,892,500
Average	$ 2,978,500

Five-year average Net Railway Operating Income Capitalized at 14.0 percent (2,978,500 ÷ 14.0 percent) equals $21,275,000.

The income indicator of value computed in accordance with this part shall be weighted 60 percent of the total estimated unit value of the railroad's property except in the case of bankrupt railroads or railroads having no net operating income as provided for in subpart 6.

Subp. 4. **Stock and debt approach to valuation.** The stock and debt approach to value is the third method which will be used to estimate the unit value of the railroad operating property. This approach to value is based on the accounting principle: assets = liabilities + equity. Therefore, when the value of a company's liabilities (debt) is found and this added to the worth of its stock, a value can be established for its assets (property).

The use of this approach to value will be limited to only those railroads meeting qualifications in items A to C:

A. The stock of the railroad must be traded on either the New York or American Stock Exchange.

B. The bonds of the railroad must be traded or have a rating by either Standard and Poor's or Moody's rating services.

C. If the railroad is part of a diversified company, the value of the railroad portion of the total stock price must be able to be separated on an earnings basis using the following method:

XYZ Railroad

XYZ railroad is wholly owned by ABC Industries Inc.

Net Earnings of ABC Industries	$5,200,500
Net Earnings of XYZ Railroad	$2,600,250

Percent of XYZ net earnings to total conglomerate earnings	50%
Value of share of ABC Industries stock	$100
XYZ Railroad portion of stock value	$50

If a railroad has no net earnings, and is part of a conglomerate, then the stock and debt indicator of value will not be used.

The value of the stock used in the stock and debt method shall be an average of the month-ending stock prices for the 12 months immediately preceding the assessment date of January 2. The value of the bonds, equipment obligations, and conditional sales contracts, and other long-term debts shall also be an average of the cost of money quotes for the 12 months immediately preceding the assessment date of January 2. The source for these stock and bond prices shall be Standard and Poor's Stock Guide or other applicable financial service.

An illustration of a computation of the stock and debt approach to value is as follows:

XYZ Railroad Company

Shares of Common Stock issued x Average price for preceding year	1,000,000 x $12 = $12,000,000
Shares of Preferred Stock x Average price for preceding year	100,000 x $15 = $ 1,500,000
Rate and face value of bonds x Average price for class of bonds for preceding year	A rated 8% bonds $10,000,000 x 99% of par = $ 9,900,000
Stock and Debt Indicator of Value	$23,400,000

After the gross stock and debt indicator of value has been computed, an allowance will be made for the effect, if any, of revenue from other than railway operations included in this indicator of value. This allowance shall be based on the ratio of a five-year average of net revenue from railway operations, as determined by the STB, to a similar five-year average of income available for fixed charges as determined by the STB. The five-year average will be the most recent five years preceding the assessment date. An example of this computation is as follows:

XYZ Railroad Company

Year	Net Revenue from Railway Operations	Income Available for Fixed Charges
....	$ 3,000,000	$ 3,500,000
....	4,000,000	4,300,000
....	5,200,000	5,700,000
....	6,000,000	6,800,000
....	5,200,000	5,400,000
	$23,400,000	$25,700,000
Average	$ 4,680,000	$ 5,140,000

Ratio $4,680,000 ÷ $5,140,000 = 91%

Gross Stock and Debt Indicator of Value	$23,400,000
Ratio of Operating to Noncarrier Earnings	91%
Net Stock and Debt Indicator of Value	$21,300,000

The stock and debt indicator of value computed in accordance with this part will bear a weighting of 25 percent of the total unit value of the railroad's property, except in the case of bankrupt railroads, railroads in bankruptcy proceedings, or railroads with no income to be capitalized, as provided for in subpart 6. If no stock and debt indicator of value is computed, the weighting of 25 percent which would have been applied to this indicator of value will be placed on the cost indicator of value.

Subp. 5. **Unit value computation.** The estimated unit value of the railroad property will be the total of the three weighted indicators of value. The following is an example of the computation of the unit value.

XYZ Railroad

Valuation Approach	Value	Weighting	
Cost indicator of value	$27,483,000	15%	$ 4,122,500
Income indicator of value	21,275,000	60%	12,765,000
Stock and debt indicator of value	21,300,000	25%	5,325,000
		Unit Value	$22,212,500

The weighting shown above may vary from railroad to railroad as provided for in subparts 2 to 4.

Subp. 6. **Railroads operating at a loss, bankrupt railroads involved in federal bankruptcy proceedings, and railroads adjudged bankrupt by a federal court.** Railroads which are involved in federal bankruptcy proceedings, adjudged bankrupt, or railroads having no net railway operating income will be valued using the cost and stock and debt approaches to value. If the stocks or bonds of such railroads are not traded, or do not meet the other requirements for use of the stock and debt indicator of value, then these railroads will be valued using the cost approach to value only.

Statutory Authority: *MS s 14.388; 270.84; 270C.06*

History: *11 SR 335; L 1998 c 254 art 1 s 107; 28 SR 1297; L 2005 c 151 art 1 s 114*

Published Electronically: *November 14, 2006*