CANADA

National Energy Board

Reasons for Decision

Trans Mountain Pipe Line Company Ltd.

RH-3-93

March 1994

Tolls

National Energy Board

Reasons for Decision

In the Matter of

Trans Mountain Pipe Line Company Ltd.

Application dated 30 September 1993 for new tolls effective 1 January 1993 and 1 January 1994

RH-3-93

March 1994

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Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* (the "Act") and the Regulations made thereunder; and

IN THE MATTER OF an application by Trans Mountain Pipe Line Company Ltd. dated 30 September 1993 for certain orders respecting tolls under subsection 19(2) and Part IV of the Act; and

IN THE MATTER OF National Energy Board Hearing Order RH-3-93;

HEARD at Vancouver, British Columbia on 29 and 30 November 1993; 1, 2, 3, 6, 7 and 8 December 1993; and at Calgary, Alberta on 15 and 16 December 1993.

BEFORE:

A. Côté-Verhaaf	Presiding Member
R. Illing	Member
R. L. Andrew, Q.C.	Member

APPEARANCES:

C.B. Johnson M.W.P. Boyle J. Fingarson	Trans Mountain Pipe Line Company Ltd.
L.G. Keough	Canadian Association of Petroleum Producers
C.W. Sanderson C.A. Ferris	Chevron Canada Limited
D. Davies	Imperial Oil Limited, Petro-Canada Inc. and Shell Canada Limited
W.M. Moreland	Alberta Petroleum Marketing Commission
J. Hanebury	National Energy Board

Abbreviations

the Act	the National Energy Board Act
AFUDC	allowance for funds used during construction
APMC	Alberta Petroleum Marketing Commission
the Application	Class 3 application dated 30 September 1993 for 1993 and 1994 tolls
avg	average
Board, NEB	the National Energy Board
CAPP	Canadian Association of Petroleum Producers
CEO	Chief Executive Officer
Chevron	Chevron Canada Limited
CICA	Canadian Institute of Chartered Accountants
DCF	Discounted Cash Flow
Imperial	Imperial Oil Limited
IPL	Interprovincial Pipe Lines Inc.
MTBE	Methyl Tertiary Butyl Ether
m^3	cubic metre
NPIS	Net Plant In Service
Petro-Canada	Petro-Canada Inc.
Shell	Shell Canada Limited
Trans Mountain or the Company	Trans Mountain Pipe Line Company Ltd.

Overview

(Note: This overview is provided for the convenience of the reader and does not constitute part of these Reasons for Decision. For details the reader is referred to the relevant sections of the Reasons for Decision.)

Tolls and Revenue Requirements

- In this proceeding, the Board set new tolls for 1993 and 1994. For transporting light crude from Edmonton to Burnaby, the approved toll is 11.8 percent lower for 1993 than for 1992, but it is 5.3 percent higher for 1994 than for 1993.

- The approved revenue requirements of $84.0 million for 1993 and $91.3 million for 1994 are $8.3 million and $8.5 million, respectively, less than the applied-for amounts.

Rate Base and Depreciation

- The Board removed $10.4 million from the 1994 rate base related to projects denied or not approved under Part III of the National Energy Board Act as of 1 February 1994, including the Stage II Expansion project which is currently before the Board. Should the Board approve this expansion application, the Company is required to file revised tolls reflecting the impact.

- The Board directed Trans Mountain to file a depreciation study by 1 March 1995.

Operating Costs

- The Board disallowed operating costs related to the Stage II Expansion for 1994 and 50 percent of the severance payments to Trans Mountain's former CEO.

Income Taxes

- The Board ordered that the provision for income taxes be calculated using the flow-through method, rather than the normalized method, starting in 1993. There is to be no drawdown of the accumulated deferred income tax balance at this time.

Capital Structure

- The Board allowed the continuation of a deemed common equity ratio of 47.5 percent.

- Funded debt for 1993 is set at 50 percent of total capitalization. For 1994, the allowed amount of funded debt is $96.8 million or 48.76 percent of total capitalization. The Board approved unfunded debt amounting to 2.5 percent of total capitalization for 1993 and 3.74 percent for 1994.

Rate of Return

- The Board approved overall rates of return on rate base of 10.96 percent for 1993 and 10.83 percent for 1994.

- The rate of return on common equity is set at 11.5 percent for 1993 and 11.25 percent for 1994.

- The Board approved the cost of funded debt of 10.57 percent for 1993 and 10.62 percent for 1994. Unfunded debt is costed at 8.5 percent for 1993 and 8.25 percent for 1994.

Toll Design and Tariff Matters

- With respect to refined petroleum facilities, the Board accepted Trans Mountain's proposed toll design except for costs associated with certain facilities located at Burnaby. A pressure relief valve and related piping will be tolled as dedicated facilities to Petro-Canada. A buffer tank will be tolled on a volumetric basis to all refined petroleum shippers. The costs associated with the buffer tank are 1/22 of the delivery tankage revenue requirement plus the cost of a special interior coating.

- The existing methodology for tankage credits will continue for 1993 and 1994. The Board directed Trans Mountain to carry out an independent review of tankage use and credits within 6 months after approval of the proposed terms of reference which are due by the 15 April 1994.

Chapter 1

Background and Application

Trans Mountain Pipe Line Company Ltd. ("Trans Mountain" or "the Company") owns and operates a pipeline for the transportation of oil from points of receipt in the provinces of Alberta and British Columbia to points of delivery in the Province of British Columbia, principally refineries and marketing terminals in the Vancouver area. Other points of delivery are the Westridge marine terminal, which is located on tidewater at the pipeline's western extremity, and a point of connection on the International Boundary with the pipeline system owned and operated by Trans Mountain Oil Pipe Line Corporation, a wholly owned subsidiary of the Company, capable of delivering Canadian petroleum to four refineries located in the State of Washington. The pipeline is utilized for regular deliveries of partially refined petroleum from Edmonton to Burnaby and refined petroleum from Edmonton to Kamloops and Burnaby.

On 16 September 1992, the Company filed a toll application (the "1992 Class 2 Application") seeking approval for new tolls to take effect as of 1 January 1993. That application was prepared in accordance with the procedures established by Order TO-3-92. By Order TOI-5-92 (see Appendix II), dated 17 December 1992, the Board allowed the tolls applied for in the 1992 Class 2 Application to be charged on an interim basis as of 1 January 1993 subject to recovery or refund.

On 13 January 1993, the Canadian Association of Petroleum Producers ("CAPP") filed a complaint concerning the Company's proposed level of tolls for 1993 and requested that the Board treat the 1992 Class 2 Application as a Class 3 application. By letter dated 1 March 1993, the Board denied CAPP's request, but ruled that certain toll design issues be added to the 1992 Class 2 Application. By letter dated 5 March 1993, the Board determined that the Company's proposed toll methodology for the transportation of refined petroleum from Edmonton to Burnaby was consistent with past Board decisions and constituted an acceptable toll design methodology.

On 22 March 1993, CAPP requested that the Board review its decisions of 1 and 5 March 1993. On 30 March 1993, the Board ordered that proceedings on the 1992 Class 2 Application be stayed pending consideration of CAPP's review application. On 16 July 1993, the Board directed the Company to refile the 1992 Class 2 Application as a Class 3 application and to include forecasts of 1994 throughput, cost of service and rate base as well as evidence on the appropriate rate of return on common equity. In accordance with the Board's direction and the requirements of Hearing Order RH-3-93, Trans Mountain filed a Class 3 application for 1993 and 1994 tolls on 30 September 1993 ("the Application"). The Application superseded the Company's 1992 Class 2 toll application with respect to tolls for 1993. However, the record of the 1992 Class 2 toll application was incorporated into the record of the current proceeding. The Company prepared its 30 September toll application based on the assumption that certain expansion facilities, referred by the Company as the Stage II Expansion (see below), would be approved by the Board.

On 29 October 1993, Trans Mountain filed a section 58 application to expand system capacity to accommodate potential exports to Washington State ("the Stage II Expansion"). By letter dated 15 November 1993, Chevron Canada Limited ("Chevron") sought clarification as to the issues

concerning the Stage II Expansion that the Board would consider in the RH-3-93 proceeding. In a 19 November 1993 reply, Trans Mountain indicated its understanding that only Part IV matters relating to these facilities including forecast additions to rate base and throughput for 1994 would be examined during the RH-3-93 toll proceeding. Before the start of this hearing, the Board indicated that this section 58 application was being addressed in a separate proceeding and directed parties to raise their concerns related to these facilities in that venue.

The hearing, which lasted 10 days, opened in Vancouver on 29 November 1993 and continued until 8 December 1993. Final argument was heard in Calgary on 15 and 16 December 1993. During the hearing, Trans Mountain requested that the Board release its decision in time to facilitate the preparation of the Company's 1993 annual report for its shareholders' meeting. On 7 February 1994, the Board released its decision in advance of these Reasons for Decision (see Appendix I).

Chapter 2

Revenue Requirement

A summary of applied-for and approved revenue requirements for 1993 and 1994 together with the Board's adjustments is shown in Tables 2-1 and 2-2, respectively. The adjustments reflect the Board's decisions on cost of service, income taxes, rate base and rate of return on rate base which are discussed in the following chapters. Trans Mountain's approved revenue requirement is $84.0 million for 1993 and $91.3 million for 1994.

Table 2-1
Revenue Requirement
For the 1993 Test Year
($000)

	Applied-for	Adjustments	Approved
Operating Expenses	49,267	(83)	49,184
Other Revenues	(190)		(190)
NEB Cost Recovery	850		850
Plant Depreciation and Amortization	10,168		10,168
Amortization of Other Deferred Items:			
Inventory Cost	378		378
Amortization of Hearing Costs	419		419
Provision for Income Tax and LCT	10,065	(7,078)	2,987
Return on Rate Base	21,305	(1,136)	20,169
Transportation Revenue Requirement	92,262	(8,297)	83,965

Table 2-2
Revenue Requirement
For the 1994 Test Year
($000)

	Applied-for	Adjustments	Approved
Operating Expenses	53,392	738	54,130
Other Revenues	(190)		(190)
NEB Cost Recovery	600		600
Plant Depreciation and Amortization	11,174	(690)	10,484
Amortization of Other Deferred Items:			
Inventory Cost	0		0
Amortization of Hearing Costs	269		269
Provision for Income Tax and LCT	11,085	(6,564)	4,521
Return on Rate Base	23,431	(1,954)	21,477
Transportation Revenue Requirement	99,761	(8,470)	91,291

Chapter 3

Rate Base and Depreciation

A summary of Trans Mountain's applied-for and approved rate bases for 1993 and 1994 is presented in Tables 3-1 and 3-2.

Table 3-1
1993 Applied-for and Approved Rate Base
($000)

	Applied-for	Adjustments	Approved
Avg original cost of plant in service	346,995		346,995
Avg accumulated depreciation on plant in service	(145,476)		(145,476)
Deferred income taxes, 1 January 1993	(23,617)		(23,617)
Working capital requirement	6,280	(161)	6,119
RATE BASE	184,182	(161)	184,021

Table 3-2
1994 Applied-for and Approved Rate Base
($000)

	Applied-for	Adjustments	Approved
Avg original cost of plant in service	379,423	(10,377)	369,046
Avg accumulated depreciation on plant in service	(153,519)	(132)	(153,651)
Deferred income taxes, 1 January 1993	(23,617)		(23,617)
Working capital requirement	6,581	(50)	6,531
RATE BASE	208,868	(10,559)	198,309

3.1 Plant Additions and Retirements for 1993 and 1994

For 1993, Trans Mountain estimated rate base additions to be in the order of $39.2 million. This takes into account $15.7 million of regular additions and carryovers and $23.5 million for refined petroleum facilities. Retirements for 1993 are estimated to be $3.2 million.

For 1994, the Company forecasted rate base additions to be $42.8 million. This includes $17 million for regular additions and carryovers and $25.8 for the Stage II Expansion. Retirements were forecast to be $1.3 million for 1994.

Trans Mountain identified 27 projects worth $250,000 or more which were completed in 1993 with cost overruns or underruns in excess of 10 percent. Overruns totalled $1,793,670 and underruns totalled $5,570,727 resulting in a net cost underrun of $3,777,057 for 1993.

CAPP questioned Trans Mountain's accounting treatment for retirements. Trans Mountain stated that the Company accounts for retirements in accordance with the Oil Pipeline Uniform Accounting Regulations, specifically sections 36 to 40.

Views of the Board

The Board is of the view that plant in service for toll setting purposes should include the forecast amounts for projects which have been approved under Part III of the National Energy Board Act at the time that the Board renders its decision in this proceeding. For 1994, the Company's Stage II expansion project, worth $25.8 million and its Regular Capital Expenditures project, worth $12.5 million, had not been approved by the Board by 1 February 1994 and, therefore, should be removed from the 1994 applied-for rate base.

Decision

The Board directs Trans Mountain to remove from the applied-for plant in service the forecast amounts for projects which have been denied or which have not been approved by the Board under Part III of the NEB Act as of 1 February 1994.

3.2 Cash Working Capital

Trans Mountain undertook a lead/lag study for the purpose of determining cash working capital for 1993 and 1994. The methodology used in this study was similar to that approved by the Board in the RH-3-91 proceeding. The exception is a change in the calculation of average waiting time in tankage. This change is due to: a) a re-evaluation of the approach used previously to calculate Edmonton tankage; b) tanks at Sumas being used more for delivery tankage as opposed to transit; c) the growth in proportion of direct shipments to total shipments; and d) further refinement in determining shipment utilization at Edmonton and Sumas.

The average net lag days forecast for 1993 and 1994 is 15 days, one day more than that approved in the RH-3-91 Reasons for Decision. The one day increase can be attributed to the net effect of the

increased provision for waiting time in Edmonton tankage, the change in Sumas tankage usage, the Goods and Services Tax lag being incorporated in the average disbursement lag and the removal of the provision for variability in cash flows. The cash working capital requirement based on this study is $2.3 million for 1993 and $2.4 million for 1994.

Intervenors did not comment on this issue.

Views of the Board

The Board has reviewed Trans Mountain's lead/lag study and has found that the methodology used by the Company is reasonable.

Decision

The Board accepts the results of Trans Mountain's lead/lag study undertaken for the purpose of determining the cash working capital component of the forecast rate base for 1993 and 1994. The Board directs Trans Mountain to make the necessary adjustments to the forecast allowance for working capital to give effect to the Board's decisions contained in these Reasons for Decision.

3.3 Net Plant in Service Adjustment Mechanism

The possibility of implementing a net plant in service ("NPIS") adjustment was raised in this proceeding. NPIS adjustment mechanisms have been prescribed by the Board for some of the pipelines regulated by it to address the concern that cost of actual plant additions had been lower than the approved amount forecasted for the test-year. The adjustment applied to other companies uses a five-year historical average of the percentage differences between plant in service actuals and forecasts. The net percentage average of this variance is then applied to the test-year rate base.

Trans Mountain stated that it would be reasonable to apply an adjustment factor in the calculation of forecast net plant in service based on historical performance but with two caveats. One being that given the major change in the Company's approach to project management since 1991, an adjustment factor based on a three-year average would be more appropriate than the five-year average used by other companies. The second caveat is that the calculation of the adjustment factor should make allowances for extraordinary events, such as delays in obtaining approval of major projects. The Company stated that it preferred an approach which only applies the percentage variance of additions to the test-year additions as opposed to the approach recently prescribed by the Board for Interprovincial Pipe Lines ("IPL") where the percentage variance of plant in service is applied to the test-year total plant in service.

CAPP urged the Board to establish an NPIS adjustment mechanism for Trans Mountain as soon as possible.

In final argument, Trans Mountain expressed concern with applying the NPIS mechanism prescribed by the Board for IPL to the Company's rate base in a year with limited applied-for additions. In this case, such an approach could lead to an adjustment which would lower rate base to a point less than that in place at the commencement of the year.

Views of the Board

The Board considers the NPIS adjustment mechanism to be a useful means of alleviating concern raised as a result of continuously high or increasingly high variances between actual and forecast additions to plant in service. The Board notes that Trans Mountain's annual rate base additions vary significantly from year to year. By virtue of implementing an adjustment mechanism based on total plant in service, the result may be a rate base which is lower than the NPIS at the beginning of the year. However, the Board finds it difficult to accept the alternative put forth by the Company. Using the variances between actual and approved additions instead of total plant in service as the basis could bring about a volatile and often large adjustment. Moreover, if the Board should accept the two caveats suggested by Trans Mountain the resulting calculation could be very complicated.

Having considered the magnitude of the increases in Trans Mountain's net plant in service variances in recent years since implementation of its new project management approach, the Board believes that the NPIS adjustment mechanism is not necessary at this time. The Board will continue to monitor Trans Mountain's net plant in service variances and assess the efficacy of the Company's new project management approach in addressing the Board's concern with actual plant additions being lower than forecast.

Decision

The Board finds that a net plant in service adjustment mechanism is not necessary at this time.

3.4 Depreciation Expense

Trans Mountain's current depreciation rates were a focus of the hearing. The last depreciation study was conducted in 1984 and led to a change in rates. During cross-examination, Trans Mountain agreed that since the time of the last study, circumstances surrounding the Company's rate base had changed drastically. The Company anticipated that depreciation rates would likely be higher for long-life assets if a new study is undertaken.

Trans Mountain stated that it had recently participated in an industry task force struck for the purpose of developing guidelines for the estimation and management of negative salvage liabilities. A draft report on its findings was to be presented to the Board of Directors of the Canadian Energy Pipeline Association in late January 1994. The Company acknowledged that it was not essential to have the findings on negative salvage liabilities before proceeding with a depreciation study, although the Company would attempt to include a provision for negative salvage. Trans Mountain realized that the earlier such a provision is provided for, the better.

Views of the Board

The Board notes that a ten-year period has elapsed since the last depreciation study was conducted by Trans Mountain and that since that time, the Company's operations

have changed significantly. The Board considers it reasonable for Trans Mountain to conduct a depreciation study at this time.

Decision

The Board accepts the depreciation rates used by Trans Mountain for the 1993 and 1994 test years and directs Trans Mountain to carry out a depreciation study and to file the results of this study with the Board by 1 March 1995.

3.5 Miscellaneous

3.5.1 Pipeline Integrity Program

In its application, Trans Mountain stated its intention to re-establish an ongoing program for hydrostatic re-testing of the pipeline system as part of its pipeline integrity program. The program is expected to take approximately 15 years to complete and the cost per year of embarking on this program is estimated at approximately $300,000. As part of its section 58 application for 1994 regular capital expenditures, the Company proposed to install water treatment facilities at a cost of $550,000.

CAPP was opposed to Trans Mountain's method of justifying projects which ensure the integrity of the pipeline system. CAPP specifically questioned the hydrostatic testing program and its justification. CAPP noted that Trans Mountain did not prepare any report or study indicating the need for such a lengthy program. Instead, Trans Mountain stated the continuance of the program was a matter of judgment by management based on the collective experience of the Company. CAPP requested that the Board direct Trans Mountain to provide its total rationale and justification for this program prior to proceeding with it.

Trans Mountain replied that the hydrostatic testing program was not new but rather the continuation of an earlier project. The Company considered that the program was fully justified in light of previous mainline breaks.

Views of the Board

The Board believes that the purpose of the hydrostatic test program, conducted between 1964 and 1986, was for the increase in the maximum operating pressure of the Trans Mountain system (Certificate OC-2, as amended, 1960).

With respect to the proposed hydrostatic testing program, the Board believes that it is the most effective method currently available for verifying the integrity of longitudinal seam welds. Therefore, the Board agrees with Trans Mountain to proceed with hydrostatic testing. However, recent studies have indicated that hydrostatic testing could result in new safety concerns if not conducted properly.

Trans Mountain is required to submit its hydrostatic test program to the Board for approval on a yearly basis. The program should include the location, estimated cost, methodology used to prioritize the sections for testing and the test methodology along with any supporting evidence the Company can provide to demonstrate that the test

will not damage the pipeline while effectively targeting the suspected defects. In addition, Trans Mountain is encouraged to pursue other possible methods for verifying the integrity of longitudinal seam welds as technology advances. The annual expenses associated with carrying out the hydrostatic testing will be reviewed in future Part IV proceedings as they are applied-for.

3.5.2 Other Capital Project-related Issues

CAPP noted that large sums of money had been spent by Trans Mountain for computer-related projects in recent years without any assessment of need for the projects or determination of their effectiveness or efficiency. CAPP stated that these types of projects were another example of situations where the Company had provided inadequate justification before proceeding with major expenditures.

In final argument, CAPP also noted that significant variances between actual and approved capital expenditures for specific projects were justified solely on the basis that, in total, the programs tended to balance out over time. CAPP contended that, in order to assess their reasonableness, enhanced justification for these projects was required as well as detailed information and precise amounts of contingencies budgeted for each project.

In rebuttal, Trans Mountain stated that computer-related projects were detailed in the last two section 58 applications and at that time CAPP had not opposed those projects. Trans Mountain also replied that doing significant amounts of engineering prior to seeking approval could reduce the amount of budgeting errors. However, it would be imprudent since the costs involved would be wasted in cases where approval is not obtained or subsequent changes are made to the scope of the project.

CAPP also objected to a provision for unanticipated projects in 1994 of $350,000, an increase of $100,000 from 1993. CAPP asserted that there were inadequate controls for this provision because projects charged to this contingency fund were not subject to any explicit approval by any regulatory body. CAPP found that seeking after-the-fact rate base treatment would be preferable to the Company's current practice. CAPP pointed out that there had been no evidence forwarded on behalf of Trans Mountain to warrant the increase and recommended the disallowance of the increase.

Trans Mountain replied that the contingency fund is not in rate base prospectively. Therefore, it has no impact on tolls for the test year. Trans Mountain also stated that this is really a matter for section 58 applications.

Views of the Board

The Board has considered the issues concerning computer-related projects and use of the contingency fund. In the Board's view, the issues raised in the proceeding are in the nature of project justification and should be dealt with in the context of a Part III proceeding. The Board notes that CAPP provided no evidence to demonstrate that the costs of these projects were unreasonable. The Board is currently reviewing the procedure for the examination of section 58 applications. It is anticipated that a more effective and efficient means of dealing with the issues raised by intervenors will emerge from that proceeding.

Chapter 4

Operating Costs

The applied-for revenue requirements for 1993 and 1994 reflected net operating expenses of $49.3 million and $53.4 million, respectively. Net operating expenses include payroll costs and other operating and maintenance expenses net of expenses allocated to capital projects, corporate development, general plant, and other non-jurisdictional activities, and include taxes, other than income taxes.

4.1 Salaries, Wages and Employee Benefits

4.1.1 Person Year Utilization

Trans Mountain's estimate of test-year salaries reflected year-end regulated staff counts of 243 for 1993 and 244 for 1994. While the 1993 staff count was the same as in 1992, the increase of one position for 1994 was attributed to the increased workload related to environmental matters. Trans Mountain made an adjustment for vacancies using a historical five-year average.

Decision

The Board accepts the requested person-year utilization for the 1993 and 1994 test years.

4.1.2 Year-Over-Year Salary and Wage Increase

The applied-for salaries and wages for the 1993 test year reflected an overall year-over-year increase, from the 1992 base payroll levels, of 2.5 percent. The Company stated that the salary and wage adjustments for 1993 were made effective 1 January 1993. For estimating its salary and wage budget for the 1994 test year, Trans Mountain provided for an overall increase of 2.5 percent above the 1993 level for both fixed rate and salaried staff. In support of its request, the Company cited inflation rate forecasts in British Columbia and Canada and results of salary surveys by the Conference Board of Canada. Interested parties did not express concerns regarding the salary and wage increases requested by Trans Mountain.

Decision

The Board approves the requested overall year-over-year salary and wage increase of 2.5 percent for each of the 1993 and 1994 test years.

4.1.3 Employee Benefits

For 1993 and 1994, Trans Mountain estimated employee benefits expenses of $3.42 million and $3.72 million, respectively compared to the actual $3.27 million in 1992. The Company did not introduce any new benefits. The increase in the cost of benefits for 1993 and 1994 was attributed mainly to the actual or forecast increases in premiums and company contributions to benefit plans. Interested parties expressed no concerns in this respect.

Decision

The Board approves the amounts of employee benefits requested for the 1993 and 1994 test years.

4.2 Other Expenses

Trans Mountain's operating and maintenance expenses for 1994 reflected certain expenses attributable to the applied-for Stage II facilities expansion. Except for the Company's head office rental expense, interested parties expressed no concern in respect of Trans Mountain's other operating and maintenance expenses.

In 1992, Trans Mountain moved its head office to a new location signing a 15-year lease with the property owners. The lease provides for year-over-year rent increases averaging 5.8 percent over the life of the lease, however, no rent was charged for the first year of the lease. The Company stated that neither Trans Mountain nor any of its major shareholders has an ownership interest in the building. In cross-examination, the Company admitted that there was no provision for a renegotiation of the rental charge. It agreed that, as the anchor tenant in the building, it could have negotiated a rent renegotiation clause, but decided not to do so. In the Company's view at the time, it seemed advantageous to work out a long-term arrangement rather than pursuing a renegotiation clause. The Company confirmed that the rental increase for its former head office, over the full term of the lease, was 3.85 percent.

CAPP argued that in its lease for the new head office the Company allowed for a rental rate escalation approximately 2 percentage points higher than the 3.85 percent rent escalation at its former head office location and it questioned the prudence of the lease. CAPP recommended that Trans Mountain be directed to file, with its Class 2 or Class 3 applications, two independent annual quotes on rental rates for equivalent space. CAPP proposed that to the extent the rates payable by the Company under the lease exceed such market rents, the excess should be disallowed from inclusion in the revenue requirement.

Views of the Board

The Board notes that the increases in operating and maintenance expenses requested by Trans Mountain for the 1993 and 1994 test years are moderate and is prepared to accept the proposed expenses. With respect to head office rental, and given that this was an arms-length negotiated lease, the Board accepts the rental charge as provided for in the lease. The Board is not convinced that requiring two independent quotes on rental rates each year would be of much help in determining whether the Company

was prudent in signing the lease. Such a conclusion can only be drawn with the benefit of hindsight near the end of the lease term.

Decision

With the exception of the operating expenses related to Stage II Expansion facilities, the Board approves the applied-for other operating and maintenance expenses and operating costs for the 1993 and 1994 test years.

4.3 Allocation of Costs to Non-Utility Activities

Trans Mountain stated that transfers out of salaries and other costs to non-utility activities were in accordance with the methodology accepted by the Board in previous decisions. In respect of cost allocation, the only issue of concern to interested parties was the allocation of severance payments to the Company's former Chief Executive Officer ("CEO") as discussed below.

In its estimate of test-year salaries, Trans Mountain included severance pay in the amount of $807,000 for 1993, which is based on a historical five-year average calculation. Of this amount, approximately 90 percent was the payment to Mr. Stokes, the former CEO of the Company. Trans Mountain stated that Mr. Stokes served the Company with distinction and under his guidance the Company grew. However, to facilitate a smooth succession, the Board of Directors reached an arrangement with Mr. Stokes which included severance payments. The agreement that Trans Mountain had with Mr. Stokes ensured that he would continue to get paid on a monthly basis the same amount he had been paid and, as well, would get the usual benefits, until he reached age 65 and then he would retire.

The Company requested that the severance payments to Mr. Stokes should be borne entirely by the utility. However, during the hearing, Trans Mountain revised its allocation and allocated approximately $9,000 in 1993 and $10,000 in 1994 to non-utility.

CAPP argued that Trans Mountain's former CEO and other senior officers were significantly involved in non-utility work and therefore, the proposed allocation of severance payments was inadequate. CAPP asked the Board to allocate a more reasonable amount of severance payments to the Company's non-jurisdictional activities.

Views of the Board

The Board notes that Mr. Stokes was placed in his present status primarily to facilitate the corporate succession process and meet other objectives of the Board of Directors. The Board finds that the Company did not fully justify why the entire cost of severance should be borne by the utility. Accordingly, the Board is of the view that for the purposes of determining revenue requirement, only 50 percent of Mr. Stokes' severance pay should be included in the five-year average calculation.

Decision

The Board finds that the current methodology for allocating costs to non-utility activities remains appropriate. However, the Board disallows 50 percent of the severance payments to the former CEO for the purposes of determining the revenue requirement of Trans Mountain.

Chapter 5

Income Taxes

5.1 Normalized versus Flow-through Taxes

The question of whether Trans Mountain should continue to use the normalized method, as compared to the flow-through method, in calculating its income tax provision was an issue in this proceeding. The provision for income taxes on the normalized basis covers income taxes on accounting income, whether currently payable or deferred to a later period, while the provision for income taxes on the flow-through basis covers only those taxes currently payable, without any provision for income taxes on current income which will not become payable until later. The deferral of the tax liability until a later period arises because of timing differences, such as the excess of Capital Cost Allowance, calculated on a declining balance for income tax purposes, over depreciation expense, calculated on a straight-line basis for accounting purposes. Over time, this difference crosses over, at which point the liability for income taxes, the payment of which had been postponed, will be covered by a drawdown of the Deferred Income Tax balance. When a pipeline continues to add significant amounts of new facilities to its system, and its rate base expands despite the deduction of depreciation, the potential cross-over and drawdown is deferred, and the Deferred Income Tax balance increases.

Since the commencement of operations, Trans Mountain has accounted for income taxes on the normalized basis, and as at 31 December 1992 had accumulated a balance of Deferred Income Taxes of $23.6 million. This amount represents the excess of the provision for income taxes, recovered in the tolls on the normalized basis, over the liability of income taxes actually payable up to the end of 1992. Trans Mountain indicated that, with current expansion plans, the balance of Deferred Income Taxes as at 31 December 1994 would grow to $31.0 million, on which basis cross-over would not occur before 1999, and could well be deferred even further with levels of capital expenditure of about $10 million annually.

Trans Mountain claimed that it should be able to continue to recover the provision for income taxes on the normalized basis on the grounds that, under rate regulation, cost-based rates are analogous to industry-wide competitive prices. On that basis the provision for income taxes should cover, not only those taxes currently payable, but also those for which the liability has been deferred, because of the availability of tax-deductible timing differences. The Company maintained that the right to deduct costs in computing taxes is unquestionably a valuable right that goes with the ownership of property, the benefit of which does not devolve to toll payers. The Company pointed out that, while the normalized basis is the preferred method of accounting for income taxes recommended by the Canadian Institute of Chartered Accountants ("CICA"), the Company's decision to use that method had predated the CICA recommendations, and had been applied on a consistent basis for some 40 years. A witness for the Company explained that this decision was made independent of the regulatory process, with the objective of achieving the true matching of cost and revenues resulting in high quality income measurement and conservative financial reporting, in order to enhance the Company's ability to finance its investment. Trans Mountain's witness explained that, while the current Deferred Income Tax balance was a reflection of a prepayment by the shippers of an expense not yet paid, this

amount was being recorded as a deduction from rate base, thus reducing the return on rate base being recovered in the tolls.

The Company acknowledged that, with a change in the method of calculating the provision for income taxes to the flow-through basis, covering taxes payable only, the provision for income taxes for 1993 and 1994 would decline from $10,065,000 and $11,085,000 to $4,338,000 and $2,743,000, respectively. However, according to Trans Mountain, on cross-over, the increase in the liability for income taxes, not covered by the Deferred Tax Balance, would cause an increase in revenue requirement in the year 2000 and thereafter. This would lead to intergenerational inequity, if future shippers were required to pay tolls which include the payment of income taxes which arose from current earnings. Trans Mountain's witness also explained that a change in the method of accounting for income taxes on the regulated pipeline could affect the investor's perception of the riskiness of the business.

CAPP pointed out that the CICA does acknowledge that, provided there is a reasonable expectation that all taxes payable in future years will be recoverable from the customers at that time, as in the case of a company in the regulated utility field, the provision for income taxes on the flow-through basis is acceptable. The witness for CAPP acknowledged that, while a switch to flow-through taxes would reduce the Company's current revenue requirements for perhaps up to six years, subsequent to that the cost of service would be lower, if left on normalized taxes.

Alberta Petroleum Marketing Commission ("APMC") demonstrated that, with capital expenditures of $15 million per year and an annual growth rate of four percent, a drawdown of deferred income taxes could be put off indefinitely. Both CAPP and APMC submitted that current shippers would rather not be required to make any further payments in respect of an income tax liability, deferral of which may be virtually infinite.

Views of the Board

While over the years the Board has required a number of pipeline companies under its jurisdiction to change the method of accounting for income taxes from normalized to flow-through, it does not automatically follow that the Board considers the flow-through method as appropriate for all pipelines. The situation for each company has to be considered on its merits.

The Board is cognizant of the fact that Trans Mountain has, from its commencement of operations, accounted for its provision for income taxes on the normalized basis. Prior to the recent resumption of the expansion of its facilities, the Company's rate base had been vanishing for some time. During that period, a drawdown of the Deferred Income Tax balance occurred. Undoubtedly, the availability of the Deferred Income Tax balance was a source of reassurance not only to the Company, but also to its shippers and lenders. While the Company is currently planning to expand its pipeline, the importance of a Deferred Income Tax balance has not been diminished.

The Board is persuaded that there is a reasonable expectation that all income taxes payable in future years will be included in future costs of service and recovered in revenues at such time.

The Board has taken into account the fact that the Company would likely have a continuing opportunity to defer payment of some income taxes. With the normalized method of calculating the provision for income taxes, this would result in continual growth in the Deferred Income Tax balance, and prolonged deferral of the cross-over point and of any drawdown of deferred income taxes. The Board has also taken into account APMC's illustration of how, with annual capital expenditures of $15 million and a growth rate of four percent per annum, a drawdown of income tax could be put off indefinitely. Under these circumstances, the Board believes it is no longer appropriate to continue to use the normalized method of calculating taxes with a consequent higher charge against users being reflected in tolls. The Board considers the potential for intergenerational inequity is not of significance. The Board believes that a change in the method of calculating the provision for income taxes is warranted.

Decision

The Board finds that the provision for income taxes shall be calculated on a flow-through basis commencing 1 January 1993. With respect to the accumulated deferred income tax balance of approximately $23.6 million as at 31 December 1992, the Board directs that no drawdown and amortization to cost of service be made at this time.

5.2 Income Tax Provision for 1993 and 1994

Trans Mountain's application contained provision for income taxes for 1993 and 1994 calculated on the normalized basis.

Decision

The Board directs Trans Mountain to calculate its provision for income taxes for 1993 and 1994 on a flow-through basis to reflect the decisions contained in these Reasons for Decision.

On 21 February 1994, Trans Mountain filed revised calculations of the provision for income tax for 1993 and 1994, which are shown in Table 5-1 and Table 5-2, respectively.

Table 5.1
Utility Income Tax Allowance
for the 1993 Test Year
($000)

		Approved
Return Related to Equity		10,048
Adjustment for Permanent Differences:		
Depreciation of plant costs not allowable for tax purposes	4	
Amortization of Right of Way	2	
Depreciation of equity AFUDC	253	
Other permanent differences	(136)	123
Adjustment for Timing Differences:		
Provision for depreciation and amortization	9,909	
Capital Cost Allowance	(16,708)	
Interest AFUDC	(422)	
Other timing differences	(129)	(7,350)
Utility Taxable Income		2,821
Income Taxes (2,821 x 44.030%) / (1 - 44.030%)		2,219
Large Corporation Tax		430
Income Taxes re Large Corporation Tax (430 x 44.030%) / (1 - 44.030%)		338
Utility Income Tax Provision		2,987

Table 5.2
Utility Income Tax Allowance
for the 1994 Test Year
($000)

		Approved
Return Related to Equity		10,590
Adjustment for Permanent Differences:		
Depreciation of plant costs not allowable for tax purposes	4	
Amortization of Right of Way	5	
Depreciation of equity AFUDC	278	
Other permanent differences	(123)	164
Adjustment for Timing Differences:		
Provision for depreciation and amortization	10,197	
Capital Cost Allowance	(16,342)	
Interest AFUDC	(120)	
Other timing differences	269	(5,966)
Utility Taxable Income		4,758
Income Taxes (4,758 x 44.210%) / (1 - 44.210%)		3,770
Large Corporation Tax		419
Income Taxes re Large Corporation Tax (419 x 44.210%) / (1 - 44.210%)		332
Utility Income Tax Provision		4,521

Chapter 6

Capital Structure and Cost of Capital

Trans Mountain applied for a capital structure which contains 50 percent funded debt and 50 percent common equity for the 1993 test year. The 1994 test-year applied-for capital structure contains 47.6 percent funded debt, 2.4 percent unfunded debt, and 50 percent common equity. These capital structure ratios assume that Trans Mountain would continue to calculate its income taxes using the normalized method. If the Board should order Trans Mountain to calculate its income taxes using the flow-through method, Trans Mountain requested that its deemed common equity ratio be set at 55 percent, and that the Board consider the balance of 45 percent to be funded debt in both test years.

Trans Mountain applied for a rate of return on common equity of 12.75 percent for the 1993 test year and 12.5 percent for the 1994 test year. The company's applied-for embedded costs of debt for the funded debt component of its deemed capital structure are 10.57 percent and 10.62 percent for the 1993 and 1994 test years, respectively. As for unfunded debt, Trans Mountain applied for a cost of 9 percent. A summary of applied-for deemed capital structure and rates of return for both 1993 and 1994 is shown in Tables 6-1 and 6-2.

Table 6-1
Applied-for Deemed Capital Structure and
Rates of Return for the 1993 Test Year

	Amount ($000)	Capital Structure (%)	Cost Rate (%)	Cost Component (%)
Debt	91,280	50.00	10.57	5.29
Common Equity	91,280	50.00	12.75	6.38
Total Capitalization[1]	182,560	100.00		
Rate of Return on Rate Base				11.67

1. Construction work in progress has not been included.

Table 6-2
Applied-for Deemed Capital Structure and
Rates of Return for the 1994 Test Year

	Amount ($000)	Capital Structure (%)	Cost Rate (%)	Cost Component (%)
Debt - Funded	96,788	47.60	10.62	5.06
- Unfunded	4,820	2.40	9.00	0.22
Common Equity	101,609	50.00	12.50	6.25
Total Capitalization[1]	203,217	100.00		
Rate of Return on Rate Base				11.53

1. Construction work in progress has not been included.

6.1 Common Equity Ratio

In this proceeding, the basis upon which an appropriate deemed common equity ratio is to be determined was canvassed extensively. There was no common ground between the company and intervenors on what the starting point should be. According to Trans Mountain, the deemed common equity ratio should be determined on the basis of the business risks faced by the NEB-regulated pipeline operations.

CAPP asserted that it is not possible, in the context of this hearing, to apply the approach recommended by Trans Mountain. In CAPP's view, the Board needs to start by allocating the consolidated capital structure, including short-term debt, to Trans Mountain's various business segments in order to preclude any cross-subsidization of one segment by another. After taking this first step, it would then be appropriate to consider changes in riskiness of Trans Mountain since the last Class 3 hearing, and whether or not these changes merit an adjustment in Trans Mountain's overall capital structure.

Three factors have been identified by parties as having a potential impact on the determination of Trans Mountain's deemed common equity ratio. These factors are the business risks of Trans Mountain's NEB-regulated pipeline operations, the accounting allocation of the consolidated capital structure and a change in the method used to calculate the allowance for income taxes.

Trans Mountain's position

Business Risk

In the company's opinion, three material changes have taken place since the Board's last Class 3 decision respecting Trans Mountain's tolls dated June 1992, namely, the expectation that the pipeline

will operate near its sustainable capacity, the refinery closures in the Vancouver area and the transportation of light sour crude from Alberta.

Trans Mountain forecasted that its pipeline would be essentially full for the last quarter of 1993 and throughout 1994. Trans Mountain stated that there is now an asymmetric forecasting risk which it did not face at the time of the last hearing. Any failure to accurately predict throughput volume can only result in a loss of anticipated revenue. This situation is perceived by Trans Mountain as exposing it to greater business risks.

According to Trans Mountain's financial expert witness, Dr. Evans, the closing of all of the Vancouver-area refineries with the exception of Chevron, creates a significant increase in the business risks faced by Trans Mountain. Firstly, Trans Mountain's forecast throughput will now depend, in part, on the ability of the Edmonton refineries to produce the required products. If one of these refineries were to shut down, the Vancouver market could be served on a temporary basis by tanker, barge, or truck from Washington State refineries, leaving Trans Mountain with a loss of transportation revenue for the refined products not shipped on the system. Secondly, the lesser environmental concerns associated with the delivery of refined products by the marine mode compared to the delivery of crude oil could translate into greater competition. Therefore, increased volume of refined products shipped on the Trans Mountain system would increase Trans Mountain's competitive risk exposure generally. Refiners/marketers in the Vancouver area have the capability to import refined petroleum, while practical alternatives to transporting crude oil on Trans Mountain's system were limited. Thirdly, the conversion of refineries to refined products terminals will result in Trans Mountain's pipeline services facing increased competition. This is because the tankage used for crude in the past will now be available to store refined products, therefore increasing the overall refined products tankage capacity. As well, marine shipments of refined products are smaller than marine shipments of crude, increasing the flexibility of importing refined products to take advantage of the increased storage capacity. Finally, because large capital-intensive investments by the shippers will only exist in Alberta instead of at both ends of the pipeline, Trans Mountain is in a less secure position and its throughput will be harder to forecast accurately.

Further, Trans Mountain argued that transporting increased volumes of refined products to the West Coast will increase the complexity of its pipeline operations and will lead to greater uncertainty in the delivery patterns to the markets that the company serves. Trans Mountain fears that a change in the mix of products transported will result in an overall decrease in throughput.

With regard to the transportation services to the Washington State refineries, Trans Mountain stated that its forecasting risks have declined. The decline is a result of the introduction of short-term purchase agreements of light sour crude between the Washington State refineries and Alberta producers, and of the greater competitiveness of the product.

Giving greatest weight to the Vancouver-area refinery closures and the fact that Trans Mountain is assumed to operate near sustainable capacity throughout the 1993 and 1994 test years, Dr. Evans concluded that Trans Mountain's business risks have increased significantly since the last Class 3 hearing.

Accounting Allocation of the Consolidated Capital Structure

Trans Mountain disagreed with the evidence of CAPP's expert witness on the allocation of Trans Mountain's consolidated capital structure because his evidence does not conform to the Board's approach of determining an appropriate capital structure based on business risk of the regulated pipeline. Trans Mountain asserted that the witness' allocation of Trans Mountain's capital between its business segments did not follow his stated assumptions. Trans Mountain also expressed the view that the two allocation methods used are ill-founded.

Trans Mountain is of the view that the structure of financing should vary between regulated and non-regulated assets because the business and financial risks are different. The Company believes that a capital structure of 50 percent long-term debt and 50 percent common equity is appropriate for its pipeline assets and that it is appropriate to finance the net book value of its investment in BC Gas Utility Ltd. with short-term debt considering the significant market appreciation of those shares over book value.

Allowance for Income Tax

Trans Mountain stated that a change from the normalized to the flow-through method of accounting for income taxes would increase the overall level of financial risk. This follows from the fact that there would be, all other things being equal, an adverse impact on the pre-tax interest coverage ratio. This reduction in pre-tax interest coverage ratios would require a greater proportion of common equity in Trans Mountain's deemed capital structure. Dr. Evans recommended a 55 percent deemed common equity ratio for both test years if the Board were to calculate Trans Mountain's income tax allowance using the flow-through method.

Position of Intervenors

Business Risk

CAPP did not agree that an asymmetric forecasting risk exists when the pipeline is operating at sustainable capacity, as defined by Trans Mountain. Furthermore, CAPP noted that there are more shippers willing to use Trans Mountain than there is available capacity. Under such circumstances, it is virtually certain that Trans Mountain's throughput will be at least equal to its forecasts for the test periods. Finally, CAPP underlined many benefits associated with Trans Mountain's pipeline being full and asserted that the pipeline is more attractive to Western Canadian producers now that it has access to new markets and transports new products.

With regard to the refinery closures, CAPP's financial expert witness, Mr. Reed, argued that the risk related to refinery closure is no greater, or perhaps even less, now than before the Vancouver refinery closures because the Edmonton refineries are more efficient and more reliable.

As for the impact on risk of an increase in refined products shipments, Mr. Reed is of the view that nothing has changed because refined petroleum products could have been imported by the marine mode in the past. Moreover, there is now an enhanced possibility of product export. Mr. Reed sees the availability of increased tankage for refined products in Vancouver as a situation which allows for

greater flexibility on the part of the oil companies to continue to supply local refined product markets during refinery maintenance.

Mr. Reed indicated that Shell Canada Limited ("Shell") and Petro-Canada Limited ("Petro-Canada") have made significant investments to convert Vancouver refineries into terminals capable of receiving products at line rate via Trans Mountain. These investments are perceived to be a testament to the commitments of the refineries to utilize Edmonton-based refinery capacity. With Trans Mountain's own investment in a refined products project to reduce contamination encountered by refined product using the line, CAPP perceives Trans Mountain to be a more attractive supply alternative than importation of refined products to Vancouver.

As for the transportation services to the Washington State refineries, CAPP's financial expert witness agrees with the statement that increased transportation of light sour crude reduces forecasting risk and business risk.

Based on his view of the favourable business prospects for the company, on statements contained in bond rating agency reports and in the company's recently applied-for expansion, Mr. Reed concluded that Trans Mountain's regulated business faces less risk than it did at the time of the last Class 3 hearing.

Imperial Oil Limited ("Imperial"), Petro-Canada and Shell submitted that 40 percent of common equity is much more reflective of the risks faced by Trans Mountain at this time than is the 50 percent common equity ratio recommended by Dr. Evans.

Accounting Allocation of the Consolidated Capital Structure

Mr. Reed recommended that the Board use the actual consolidated capital structure of Trans Mountain as the starting point for the determination of the appropriate deemed capital structure for the NEB-regulated pipeline. Recognizing that short-term debt is an integral part of Trans Mountain's overall financing activities, Mr. Reed asserted that short-term debt should be apportioned among all business segments. Based on the results of this analysis, Mr. Reed concluded that Trans Mountain lacks sufficient equity capital to support Dr. Evans' recommendations on capital structure.

Mr. Reed used two different methods to allocate the consolidated capital structure among the various business segments of the company. The first method assumes equivalent pre-tax interest coverage ratios across all business segments and the second method assumes equivalent capital structure ratios across all business segments.

Considering that the risks facing Trans Mountain's regulated business have continued to diminish since 1992 and that the unregulated portions of Trans Mountain are riskier than the regulated business, Mr. Reed concluded that a realistic allocation of Trans Mountain's capital results in a deemed common equity ratio of 37.10 percent. However, in order to avoid imposing too much change in the context of a single rate hearing, Mr. Reed recommended a deemed common equity ratio of 40 percent.

Allowance for Income Tax

Mr. Johnson, expert witness for CAPP on income tax matters, stated that he did not expect rating agencies to adjust Trans Mountain's bond rating if the NEB should adopt his recommendation with

respect to the use of flow-through income taxes. Mr. Johnson is of the view that bond rating agencies rely on factors other than interest coverage, and that the so-called "benchmark" interest coverage ratios are largely ignored by the agencies themselves.

Views of the Board

In the RH-3-91 Reasons for Decision, the Board reduced Trans Mountain's deemed common equity ratio from 50 percent to 47.5 percent on the basis of a decrease in the risks faced by the Company since the 1986 Class 3 toll hearing. Based on all the evidence presented on business risk in this hearing, the Board concludes that while there has been some decrease in Trans Mountain's business risk since the RH-3-91 proceeding, that decrease in risk is not significant enough to warrant an adjustment to the deemed common equity ratio.

The Board is of the view that the asymmetric forecasting risk as described by Trans Mountain does not increase the Company's business risks. On the contrary it is more likely that benefits will result from the prospect of the pipeline being full. The ability to provide transportation services at lower tolls and an indication to investors and to the financial community of a prospering pipeline are examples of such benefits.

The Board finds the Company's business risk somewhat reduced as a result of the closure of the Vancouver refineries since the Edmonton refineries are more efficient and more reliable. The ability of the Edmonton refineries to produce the required products is enhanced, increasing the probability that products will be available to the pipeline for shipment. The higher efficiency of the Edmonton refineries should increase the shippers' operating profitability and therefore their motivation to use the pipeline.

The Board finds that little has changed with regard to the potential competition from the marine mode. Contrary to the Company's assertion, the Board believes that marine shipments of refined petroleum today would unlikely be a greater source of competition than the importation of crude into Vancouver in the past. The Board finds that the increased tankage for refined products in Vancouver would mainly allow for greater flexibility on the part of the oil companies to continue to supply refined product markets during refinery maintenance.

With regard to the risk associated with the transportation of light sour crude from Alberta, the Board is of the view that there has been a decrease in risk.

Turning to the consolidated capital structure issue, the Board considers it necessary to assure itself that the structure and the costs of financing the NEB-regulated assets are not adversely affected by the presence of the non-NEB operations. However, the Board does not believe that an accounting allocation of the consolidated capitalization of Trans Mountain among the varying business segments is particularly helpful. The Board is of the view that the determination of the appropriate deemed common equity ratio, for the purposes of determining the allowed rate of return on rate base, must be primarily based on an assessment of the business risks of Trans Mountain's NEB-regulated pipeline operations.

As to the issue of whether sufficient actual equity is left implicitly to underpin Trans Mountain's non-utility activities, the Board is not persuaded that the analysis carried out by Mr. Reed showed that sufficient common equity has not been made available to the Company. In particular, the Board is of the view that Trans Mountain's cost of debt is not adversely affected by its investments in assets not under the jurisdiction of the Board.

Finally, the Board is of the view that a change from the normalized to the flow-through method of calculating income tax will not have a material impact on Trans Mountain's financial risks.

Decision

The Board approves a deemed common equity ratio of 47.5 percent for the 1993 and 1994 test years.

6.2 Rate of Return on Common Equity

Trans Mountain applied for a rate of return on common equity of 12.75 percent for 1993 and 12.5 percent for 1994. CAPP submitted that the appropriate rate of return on common equity is 11.0 percent for both years.

Trans Mountain's witness, Dr. Evans, began his discussion of the required return on common equity with the selection of comparable companies that could be used for the comparable earnings and discounted cash flow tests. Dr. Evans selected a group of 22 companies that ranked as low risk on a variety of qualitative and statistical risk measures. Measuring the actual return on book equity over the 1983-1992 period and taking into consideration the varying levels of corporate profitability, current low inflationary expectations and wide variations in the sample data, Dr. Evans recommended a return on equity of 12.5 to 13.0 percent based on the comparable earnings test. Dr. Evans stated that even though investors could not expect returns as high as they were in the mid-eighties nor as low as they have been in the early nineties, the comparable earnings test can still produce reliable results if informed judgement is applied to the raw earnings data.

Dr. Evans' discounted cash flow ("DCF") analysis used the same company groups selected for his comparable earnings test. The dividend yield measured for these companies was in the 2.25 to 2.5 percent range. The growth estimate, calculated with regard to the growth in book value per share, was in the range of 9.25 to 10.0 percent. Adding the dividend yield to the estimated growth rate suggests a 11.5 to 12.5 percent return on common equity. In light of Trans Mountain's level of risk, Dr. Evans recommended 12.0 percent as Trans Mountain's "bare bones" cost of common equity. Adding to this a 60 to 120 basis point adjustment for flotation costs, Dr. Evans' final discounted cash flow recommendation for Trans Mountain's return on common equity was 12.6 to 13.2 percent. Dr. Evans asserted that in the current financial market conditions, the returns calculated by the discounted cash flow test were unreasonably low. Though he was unwilling to abandon the test completely, Dr. Evans stated that he gave the discounted cash flow results very little weight in his final recommendation.

To begin his equity risk premium analysis, Dr. Evans examined historical, current and forecast long-term Government of Canada bond rates. Dr. Evans expected long-term Government of Canada

bonds to yield in the range of 7.75 to 8.25 percent for 1993 and 1994. In his updating statement, Dr. Evans modified this range to 7.5 to 8.0 percent with emphasis on the upper half for 1993 and the lower half for 1994.

Dr. Evans next evaluated three studies of historical returns carried out by the Task Force on Retirement Income Policy, The Canadian Institute of Actuaries and by Professors James E. Hatch and Robert W. White. Dr. Evans used six factors to adjust the results of the three studies to come up with a market risk premium in the range of 5 to 6 percent. He then adjusted the market risk premium for Trans Mountain's relatively lower risk and concluded that a reasonable equity risk premium for Trans Mountain's jurisdictional activities is in the range of 3.5 to 4.0 percent, or about 63 percent of the market risk premium. Adding the midpoint 3.75 percent risk premium to the assumed yield on long-term Government of Canada bonds of 7.75 to 8.25 percent yields an investors' "bare bones" required rate of return of 11.5 to 12.0 percent.

Dr. Evans stated that after calculating the "bare bones" returns on common equity with both the DCF and equity risk premium methods, a flotation adjustment must be added. This flotation adjustment is required to compensate the company for costs incurred in issuing new common stock, for the possible dilution of existing share value because of new share issues and for general market breaks or unforseen financial circumstances. Dr. Evans stated that an adjustment that will allow Trans Mountain's jurisdictional activities to achieve a notional 110 to 120 percent market to book ratio is required. A 60 to 120 basis point adjustment is, in Dr. Evans' view, an adequate flotation adjustment in this case. Dr. Evans recommended that a 90 basis point flotation allowance be added to his "bare bones" cost of capital and made a final recommendation for the rate of return on common equity for Trans Mountain of 12.4 to 12.9 percent based on the equity risk premium method.

Mr. Reed, CAPP's witness, submitted that several aspects of Dr. Evans' comparable earnings analysis were flawed. Dr. Evans' method for selecting comparable companies biased the returns upwards because it identified successful companies, rather than low risk ones. Mr. Reed next asserted that it is generally accepted that utilities face lower risks than companies in other industries, such as those used by Dr. Evans as comparable companies. Mr. Reed pointed out that Dr. Evans chose to eliminate a time period of low growth, 1981-1982, as well as values that deviate significantly from the average, which eliminated current low returns. In his view, greater weight should be given to more recent experiences than to more distant ones. Using Dr. Evans' data, Mr. Reed calculated ten-year, seven-year and five-year average earnings to emphasize more recent experiences. The results were in a range of 11.3 to 13.5 percent and, to reflect continued low earnings, Mr. Reed felt that a return on common equity of 12.0 percent would result from the comparable earnings test. However, because of the problems with the selection of comparable companies and appropriate time periods, Mr. Reed did not give any weight to the comparable earnings test in his final recommendations.

Mr. Reed noted that the DCF test is quite sensitive to the time period chosen for calculating the growth rates. More recent experiences should, in his opinion, be weighted more heavily than more distant experiences and, because of the current trend of declining returns, Dr. Evans' DCF test overstated the required returns. Next, Mr. Reed asserted that the underpinning of the DCF model is the stream of cash flows the investor expects to receive. The stream of cash flows is represented by the dividends received by the investor. Thus, when calculating the return on common equity, it is the growth of this stream of cash flows, or the growth in dividends, that should be used in the calculation. Growth in book value per share, used by Dr. Evans, is not as representative of investors' expectations

as is growth in dividends per share. Mr. Reed used several of Dr. Evans' schedules to calculate his own DCF results which indicated returns in the 9.3-11.3 percent range. He suggested that an appropriate return for Trans Mountain based on the DCF test is 10.3 percent, the midpoint of his range and he stated that he did not believe that any flotation allowance was required in this case. In making his final recommendation, Mr. Reed stated that he gave the DCF test some weight but noted that the estimates of growth rates are highly judgmental.

From his analysis of Trans Mountain's risks, Mr. Reed concluded that the jurisdictional operations face less risk in the test years than they did in 1992, when Trans Mountain's return on common equity was last reviewed by the Board. Mr. Reed cited the 3.25 percent risk premium used by Dr. Evans in the RH-3-91 proceeding and, in light of his conclusion about the decline in risk, he used this number in his calculations rather than the 3.75 percent equity risk premium currently suggested by Dr. Evans.

Concerning Dr. Evans' forecast of long-term Government of Canada bond rates, Mr. Reed showed that long-term Government of Canada bond yields had continued to decline in recent months. At the time his evidence was filed, Mr. Reed found the yields to be in the range of 6.72 to 7.38 percent. Mr. Reed quoted a recent Consensus Forecasts report showing a forecast of 1994 ten-year Government of Canada bonds to be 6.9 percent. By adding to this the current premium for longer-term bonds (58 basis points), a long-term Government of Canada bond rate for 1994 was estimated by Mr. Reed at 7.48 percent.

Mr. Reed added the 3.25 percent rate to current and forecast long term Government of Canada bond yields to get an equity risk premium return on common equity of 10.55 percent for 1993 and 10.73 percent for 1994. Based on these figures, Mr. Reed recommended a return on common equity of 11.0 percent for Trans Mountain.

Concerning the flotation allowance, Mr. Reed stated that no explicit flotation adjustment was required by Trans Mountain. Firstly, Mr. Reed argued that risk premiums already incorporate investors' expectations with regard to costs incurred when new stock is issued and that no adjustment for market breaks is required. Second, Mr. Reed noted that at the time of the hearing, Trans Mountain's common shares were trading at 170 percent of their book value and he argued that no premium was necessary to assure the stock would trade at Dr. Evans' benchmark of 110 to 120 percent of its book value.

In argument, counsel for APMC recommended that the Board place no weight on the comparable earnings and discounted cash flow tests. Citing the Board's decision in the recent Foothills Pipe Lines Ltd. case and the evidence submitted by Dr. Evans on these two tests, APMC stated that neither of these tests produces reliable results in today's economic climate. Although APMC stated that the Board should make its decision on return on equity for Trans Mountain with regard solely to the equity risk premium test, it was also their view that the results of this test, as calculated by Dr. Evans, were too high. APMC stated that the equity risk premium calculated for Trans Mountain by Dr. Evans was not consistent with the risk premiums calculated in recent cases by other expert witnesses for other companies under the Board's jurisdiction. In addition, APMC was of the view that the flotation adjustment suggested by Dr. Evans was excessive. APMC stated the view that, based on the evidence in this case, a return on common equity in the order of 11 percent was appropriate for Trans Mountain.

Views of the Board

The Board believes that, at this time, no significant weight can be placed on the results of either the comparable earnings or discounted cash flow tests for the determination of an appropriate rate of return on common equity for Trans Mountain. Under current economic conditions, the comparable earnings test does not yield results upon which the Board can confidently rely. While it continues to believe that the discounted cash flow test is conceptually useful, the Board is convinced that, because of the uncertainty in estimating investors' expectations, the results of this test are unreliable. Thus in the circumstances of this case, the equity risk premium test will provide the most reliable results for the determination of the appropriate rate of return on common equity for Trans Mountain.

The first step in calculating the rate of return on common equity using the equity risk premium method is to choose a risk-free rate of return. The evidence submitted in this hearing shows that the yield on long-term Government of Canada bonds will be in the range of 7.5 to 8.0 percent in both test years. The Board notes that, in this proceeding, the financial witnesses chose to quote yields for a long-term Government of Canada bond series that is an amalgamation of a number of bond issues with maturities of ten years and over, rather than bonds with terms to maturity of 30 years. The Board is satisfied that these long-term Government of Canada bond yields provide a reasonable estimate of the risk-free rate which can be used in determining the rate of return on Trans Mountain's common equity. The Board considers the appropriate risk-free rate of return to be 7.75 percent in 1993 and 7.5 percent for the 1994 test year.

The evidence presented in this hearing indicates that the market risk premium is in the range of 5 to 6 percent. It is the view of the Board that the lower half of this range should be emphasized. The Board notes that parties did not file evidence on any analytical mechanism by which the market risk premium can be adjusted downwards to reflect Trans Mountain's relatively lower risk. Dr. Evans estimated Trans Mountain to be approximately 63 percent as risky as the market and that an appropriate equity risk premium for Trans Mountain was in the 3.5 to 4.0 percent range. If this 63 percent figure is applied to the lower end of the market risk premium, an equity risk premium for Trans Mountain of approximately 3.25 percent is produced. Mr. Reed stated that, because he felt the risks of Trans Mountain had not increased since the last toll hearing, the equity risk premium used by Dr. Evans in that hearing, 3.25 percent, was still appropriate.

The Board believes that an equity risk premium of 3.25 percent is appropriate for Trans Mountain. Adding the risk free rates and the equity risk premium for Trans Mountain yields a "bare bones" return on common equity of 11.0 percent for the 1993 test year and of 10.75 percent for the 1994 test year.

Dr. Evans suggested that these "bare bones" returns needed to be adjusted upwards with a flotation allowance of 60 to 120 basis points to account for the costs of issuing stock, the dilution effect due to market pressure and to provide flexibility in unforseen

economic circumstances. The Board notes that, at the time of the hearing, the shares of Trans Mountain were trading at a level considerably above their book value. Therefore, the Board is not convinced that Trans Mountain's "bare bones" return on equity need be adjusted for market pressure at this time.

The Board believes that the "bare bones" return on Trans Mountain's equity should be adjusted for the costs incurred in issuing common shares and to provide flexibility in unforseen economic circumstances. An adjustment of 50 basis points should provide Trans Mountain with adequate protection from these factors. Based on the foregoing considerations, the Board concludes that appropriate rates of return on common equity for Trans Mountain are 11.50 percent in 1993 and 11.25 percent in 1994.

Decision

The Board approves a rate of return on common equity for Trans Mountain of 11.50 percent for 1993 and 11.25 percent for 1994.

6.3 Funded Debt

Trans Mountain applied for a funded debt portion of 50 percent of its capital structure with a cost of 10.57 percent in the 1993 test year, with the continuation of the normalized taxation method. For 1994, Trans Mountain applied for funded debt of $96.8 million with a cost of 10.62 percent. Trans Mountain's applied-for 50 percent funded debt represents no change from the percentage approved in RH-3-91. The $96.8 million allocated in 1994 as funded debt is less than 50 percent of Trans Mountain's rate base.

CAPP suggested that the funded debt component of Trans Mountain's deemed capital structure should be 47.5 percent in both test years. CAPP argued that Trans Mountain's consolidated capital structure was the best determinant of the appropriate deemed capital structure of the regulated operations. In CAPP's view, the deemed capital structure of Trans Mountain's NEB-jurisdictional activities should have a similar proportion of long-term debt as the consolidated capital structure. CAPP determined that 47.5 percent was an appropriate deemed debt component. CAPP submitted no evidence to suggest that Trans Mountain should not be awarded its embedded cost of long-term debt.

Views of the Board

Since its last Class 3 toll proceeding, Trans Mountain has not issued any long-term debt. The Board is of the view that funded debt amounting to 50 percent of Trans Mountain's capitalization is appropriate for the 1993 test year. Of the Company's long-term bonds currently outstanding, for the purpose of this proceeding the Board considers that $96.8 million is the maximum amount that Trans Mountain may allocate to its NEB-jurisdictional activities as funded debt. Accordingly, the Board accepts the $96.8 million in funded debt allocated by Trans Mountain for the 1994 test year.

Decision

For the 1993 test year, the Board approves funded debt amounting to 50 percent of Trans Mountain's capitalization (the sum of rate base and construction work in progress) and a cost rate of 10.57 percent. With respect to 1994, the Board approves a funded debt amount of $96.8 million and a cost rate of 10.62 percent.

6.4 Unfunded Debt

Trans Mountain calculated that there would be no unfunded debt in the 1993 test year and $4.8 million in the 1994 test year. The appropriate rate for unfunded debt requested by the Company was 9.0 percent. Dr. Evans stated that the appropriate rate for unfunded debt is the interest rates for long-term A-rated corporate debt in Canada during the test years.

CAPP stated that unfunded debt balances represented the amount of short-term debt used by the Company to finance rate-base assets. From an analysis of Trans Mountain's consolidated capital structure, Mr. Reed calculated that it would be appropriate to allocate 12.5 percent of Trans Mountain's NEB-jurisdictional capital structure to unfunded debt. Mr. Reed is of the opinion that unfunded debt balances represents short-term financing and should be costed at a short-term rate. Using Trans Mountain's 1992 debt costs and the current yields on short-term debt instruments, Mr. Reed recommended an unfunded debt cost of 5.8 percent.

Views of the Board

Once the common equity portion of the deemed capital structure for Trans Mountain has been set, the Board considers the balance as long-term debt which finances long-term assets. In the case where the company does not have sufficient funded debt outstanding to cover this portion of the capital structure, unfunded debt, or long-term debt yet to be issued, is created in the company's deemed capital structure.

The Board finds that it is appropriate to consider 2.5 percent of Trans Mountain's deemed capital structure as unfunded debt in the 1993 test year. For the 1994 test year the balance of capitalization minus an amount which equals to 47.5 percent common equity and $96.8 million of funded debt should be unfunded debt.

In the Board's view, it is appropriate to cost Trans Mountain's unfunded debt balances with regard to interest rates on long-term debt issued by companies with similar risk profiles to Trans Mountain. Thus, the Board concludes that the appropriate cost rates for unfunded debt balances in Trans Mountain's deemed capital structure are 8.5 percent in 1993 and 8.25 percent in 1994.

Decision

The Board approves unfunded debt amounting to 2.5 percent of the Company's capitalization and a cost rate of 8.5 percent for the 1993 test year. Regarding 1994, the Board approves an unfunded debt amount required to balance Trans Mountain's capitalization and a cost rate of 8.25 percent.

6.5 Rate of Return on Rate Base

Decision

Based on the decisions herein, the Board estimates the allowable rate of return on rate base at 10.96 percent for 1993 and 10.83 percent for 1994.

The approved capital structure and rates of return for the 1993 and 1994 test years are shown in Tables 6-3 and 6-4, respectively.

Table 6-3
Approved Deemed Capital Structure and
Rates of Return for the 1993 Test Year

	Amount ($000)	Capital Structure (%)	Cost Rate (%)	Cost Component (%)
Debt - Funded	92,011	50.00	10.57	5.29
- Unfunded	4,601	2.50	8.50	0.21
Common Equity	87,410	47.50	11.50	5.46
Total Capitalization[1]	184,021	100.00		
Rate of Return on Rate Base				10.96

1. Construction work in progress has not been included.

Table 6-4
Approved Deemed Capital Structure and
Rates of Return for the 1994 Test Year

	Amount ($000)	Capital Structure (%)	Cost Rate (%)	Cost Component (%)
Debt - Funded	96,800	48.76	10.62	5.18
- Unfunded	7,412	3.74	8.25	0.31
Common Equity	94,197	47.50	11.25	5.34
Total Capitalization[1]	198,309	100.00		
Rate of Return on Rate Base				10.83

1. Construction work in progress has not been included.

Chapter 7

Toll Design and Tariff Matters

7.1 Throughput Forecasting

7.1.1 Forecasting Methodology

Trans Mountain noted that its current throughput forecasting methodology is based on information received from its shippers and other parties with knowledge of markets served by the Company. Forecasts for deliveries to domestic markets such as the Vancouver and Kamloops areas are based on a 13-month forecast supplied on a monthly basis by shippers. Deliveries to export markets include speculative volumes and are based on discussions between Trans Mountain and its shippers and purchasers of crude oil in the spot markets of Washington State and offshore. Trans Mountain stated that it seeks consensus of opinions while considering such factors as relative pricing of alternate petroleum supplies, desirability of Canadian crude oil as feedstock, availability of desired petroleum types and potential supply disruptions. To validate these forecasts, Trans Mountain circulates them to its shippers and purchasers in the spot markets for comments, before filing them monthly with the Board.

Trans Mountain indicated that its shippers are generally supportive of its throughput forecasting methodology and, as a result, continues to believe its methodology is the best alternative available. Trans Mountain admitted that significant variances have occurred in some years, but over time Trans Mountain believes its forecasts have been reasonably accurate.

None of the interested parties commented on Trans Mountain's current throughput forecasting methodology.

Views of the Board

Although variances have occurred in individual years, the Board concurs with Trans Mountain that over time, its throughput forecasts have been reasonably accurate. The Board also notes that the current throughput forecast methodology was not questioned by any of the interested parties. The Board will continue to monitor Trans Mountain's throughput forecast to ensure that the current methodology continues to be appropriate.

Decision

The Board finds that the current throughput forecasting methodology employed by Trans Mountain remains appropriate.

7.1.2 Throughput Forecasts for 1993 and 1994

Trans Mountain initially submitted an average throughput forecast for the 1993 test year of 33 126 cubic metres per day, an increase of 786 cubic metres per day from the 1992 actual throughput of 32 340 cubic metres per day. With respect to the 1994 test year, the Company forecasted an average throughput of 34 800 cubic metres per day. The 1994 forecast included the increased throughput arising from the proposed Stage II Expansion. During the hearing, Trans Mountain revised its 1993 and 1994 throughput forecasts upwards to 33 687 cubic metres per day and 36 128 cubic metres per day, respectively. And, at the request of the Board Trans Mountain filed a forecast for 1994 of 34 300 cubic metres per day, excluding the Stage II Expansion deliveries.

Trans Mountain indicated that throughput to domestic markets included deliveries of petroleum, semi-refined petroleum and refined petroleum to refineries and terminals in the Vancouver area and deliveries of refined petroleum to Kamloops. Export volumes reflect deliveries of petroleum to Washington State refineries via the connection at Sumas, B.C. with the pipeline operated by Trans Mountain Oil Pipe Line Corporation as well as deliveries of petroleum for tanker loadings at the Westridge Marine Terminal in B.C.

Trans Mountain stated that several changes occurred in 1993 that affected its operations. In May 1993, Trans Mountain commenced deliveries of Methyl Tertiary Butyl Ether ("MTBE"), an octane enhancer, from the new Alberta Envirofuels Inc. plant in Edmonton, Alberta to the Chevron refinery in Burnaby, B.C. In April 1993, the Shell refinery in Burnaby and the Petro-Canada refinery in Port Moody, B.C. were shutdown and converted to refined petroleum product terminals, which are capable of receiving motor gasoline and diesel fuel. Deliveries of these products to the Shell and the Petro-Canada terminals commenced in June and September 1993, respectively.

Trans Mountain believes that high apportionment on the IPL system will continue, and will result in higher deliveries on the Company's system. In addition, increases in forecast deliveries are also caused by certain shippers delivering new volumes of a high sulphur petroleum to certain Washington State refineries. These refineries currently process Alaskan North Slope crude oil which is somewhat similar in quality to Alberta high sulphur crude oil. This will result in its pipeline system operating at, or close to, capacity for the latter part of 1993 and throughout 1994.

Views of the Board

The Board is satisfied with Trans Mountain's evidence that higher deliveries are expected for 1993 and 1994 in comparison to 1992 throughput levels. The Board also notes that none of the interested parties questioned Trans Mountain's throughput forecast for 1993 and 1994.

Decision

The Board approves Trans Mountain's revised forecast for 1993 of 33 687 cubic metres per day for 1993 and of 34 300 cubic metres per day for 1994, which excludes deliveries associated with the proposed Stage II Expansion, as shown in Exhibit B-35.

Table 7-1 provides a comparison of Trans Mountain's forecast test-year deliveries as set out in the application to the approved forecast.

Table 7-1
1993 and 1994 Test-Year Deliveries
(cubic metres per day)

From	To	1993 Applied-for[2]	1993 Approved	1994 Applied-for[2]	1994 Approved
Edmonton	Kamloops	3 226	3 226	2 827	2 827
Edmonton	Sumas	8 074	8 074	7 991	6 257
Edmonton	Burnaby	17 699	17 699	20 714	20 593
Edson	Sumas	224	224	263	263
Edson	Burnaby	124	124	0	0
Kamloops	Sumas	1 122	1 122	1 896	1 923
Kamloops	Burnaby	3 218	3 218	2 437	2 437
Total		33 687	33 687	36 128	34 300

1. Application dated 30 September 1993, as amended.
2. Application dated 30 September 1993, as amended; includes deliveries arising from the proposed Stage II Expansion.

7.1.3 Export Throughput Deferral Account

CAPP was concerned about Trans Mountain's ability to accurately forecast its export volumes. It pointed to recent variances between applied-for and actual volumes exported at Westridge and Sumas as an indication that there was a bias in favour of Trans Mountain, allowing the Company to realize excess earnings. It asserted that the current regulatory regime creates toll instability through mid-year toll adjustments and compensates Trans Mountain unduly with higher earnings. Moreover, in the 1993/4 period, revenue from export volumes was forecast to average 33 percent of total transportation revenue as compared to 21 percent in 1992 while variances in export volumes had previously reached as much as 345 percent. In CAPP's view, export volumes are beyond the Company's ability to control and meet the Board's criteria for deferral account treatment. CAPP proposed that this situation be addressed by establishing a deferral account to record the difference between approved and actual revenue from export deliveries. It asserted that establishing this deferral account would result in lower and more stable tolls as well as reduce the risks faced by investors.

Trans Mountain opposed the establishment of such a deferral account. It was satisfied that it already had an effective forecast methodology which is based upon shipper consultation and consensus. It noted that over time, variances in its aggregate throughput estimates had tended to cancel each other out. In the near term, Trans Mountain expected export volumes to be more stable as a result of greater use of term contracts. Trans Mountain considered the deferral account concept especially inappropriate for the 1993 and 1994 test years. For 1993, Trans Mountain's actual throughput would be known by the time the Board issued its decision. As for 1994, Trans Mountain's throughput

forecast showed that the pipeline will be operating at its sustainable capacity for the entire year. This meant that it would be virtually impossible to exceed its allowed rate of return in 1994 as the result of a throughput variance because an increase in export deliveries could only be accommodated by a corresponding reduction in domestic deliveries. Trans Mountain also expressed the concern that with this deferral account, a decrease in domestic deliveries coupled with an increase in exports, would put the recovery of its approved revenue requirement at risk. The present regime allowed changes in export and domestic deliveries to offset each other.

Trans Mountain contended that the existing toll adjustment mechanism dealt appropriately with the uncertainty inherent in any forecast. It criticized CAPP's proposal for being administratively complex and suggested that the proposal may constitute undue discrimination, if the Company were precluded from immediately adjusting its tolls when there was a variance in export, but not domestic, volumes. Moreover, Trans Mountain was concerned about intergenerational equity when its shippers vary on a monthly basis. It asserted that deferral account balances would themselves cause toll instability and distortion.

Imperial, Petro-Canada and Shell supported CAPP's proposal. They considered that such a deferral account would benefit both Trans Mountain and its shippers.

APMC also supported this proposal. It noted the increasingly large proportion of Trans Mountain's revenue derived from export deliveries and claimed the record demonstrated that these were beyond the ability of either Trans Mountain or its shippers to control or forecast with reasonable accuracy. APMC recommended that the continuation of such a deferral account be subject to periodic review.

In argument, CAPP dismissed Trans Mountain's assertion of increased administrative complexity and regulation as a complete misunderstanding of the situation. In CAPP's view, this deferral account would result in fewer mid-year toll adjustments which in turn would reduce regulation and administrative complexity. Further, CAPP found Trans Mountain's concern with regard to potential intergenerational inequity to be absurd since the only alternative offered was to allow Trans Mountain to keep the excess earnings.

Views of the Board

The Board notes that for 1994, Trans Mountain would be operating at sustainable capacity. Trans Mountain has the incentive to maintain its throughput, whether domestic or export, at the forecast high levels.

As to deferral accounts in general, the Board notes that they are at variance with the traditional views of many of the parties. For the immediate future, the Board is satisfied that the current toll trigger mechanism will provide sufficient assurance that Trans Mountain's earnings will be within an acceptable range.

Decision

The Board finds that the Export Throughput Deferral Account, as proposed by CAPP, is not necessary at this time.

7.2 Refined Petroleum Facilities

In 1993, Trans Mountain installed various facilities to transport refined petroleum from Edmonton to Burnaby. The need for these facilities arose as a result of Shell and Petro-Canada deciding to close their refineries in the Vancouver area and operate these sites as marketing terminals. Trans Mountain asserted that it had determined its toll design for the new facilities on a basis consistent with established Board practice. Of the $22.7 million total cost of the additions, Trans Mountain identified $8.0 million as dedicated facilities, the cost of which would be recovered directly from Shell and Petro-Canada. The remaining facilities were considered to have joint or alternate use to the pipeline system and therefore, Trans Mountain proposed to roll-in these costs with system costs.

Chevron contended that there were three groups of facilities the cost of which should also be tolled on a stand-alone basis. First, manifold and piping facilities at Edmonton were added to segregate refined products in a way that was more specialized and distinct from the service required by other shippers. Chevron considered these facilities to provide a different level and nature of service for refined petroleum shippers. Second, the pressure relief valve at Burnaby had been installed exclusively to facilitate refined petroleum deliveries down a 6 kilometre lateral dedicated to Petro-Canada. Chevron believed that the cost of this relief valve should be charged to Petro-Canada even though it was not physically connected to the lateral. Third, the buffer tank at Burnaby would be used for separating contaminated interface from refined petroleum. Chevron stated that since this interface material forms part of each batch of refined product, either the entire batch should be charged for the use of tankage or the cost of this tank should be allocated to refined petroleum shippers.

CAPP supported Chevron's position with respect to the relief valve and buffer tank. It found a stand-alone treatment for these two items to be more consistent with established toll design principles.

Imperial, Petro-Canada and Shell supported Trans Mountain's proposed toll design. They argued that the Company's proposal was consistent with established principles. In their view, tolls for refined petroleum shippers should be derived from the common cost pool where the service provided was of a level and nature required to provide basic transportation service for a multi-stream pipeline, even if they are the sole user of a facility. They characterized the concerns identified by Chevron as being based upon a misunderstanding of the operation of the pipeline and the service provided.

In final argument Trans Mountain pointed out that the subject Burnaby buffer tank was not a new facility installed specifically for refined petroleum. It was approximately 40 years old.

Views of the Board

In OH-1-87, the Board stated its approach to cost allocation on Trans Mountain as follows:

> "The Board believes that the capital and operating costs of facilities on the Trans Mountain system should be rolled into the common rate base and cost pool if the facilities are of a level and nature required to provide a basic transportation service for a multi-stream pipeline system."

For the most part, the Board accepts the reasonableness of Trans Mountain's proposed toll design for the refined product facilities. The Board considers that access to tankage is part of basic transportation service. The manifold and piping facilities now installed at Edmonton for refined petroleum are largely comparable to the common terminal facilities for MTBE and crude oil. The Board notes that these facilities are all located downstream of the custody transfer point and facilitate normal system terminalling operations. Further, the Board accepts that similar facilities would have been required if crude oil, instead of refined petroleum, were being introduced to the pipeline. Trans Mountain is required to provide this basic service to all streams.

Concerning the pressure relief valve at Burnaby, the Board notes that the valve is required to facilitate deliveries through a dedicated pipeline to Petro-Canada. The existing pressure relief valve at Burnaby has not been replaced, but continues to be used when deliveries are not being made to Petro-Canada. It is incidental in this case that refined petroleum, and not crude, is being delivered to Petro-Canada. The Board also notes that some additional piping was also required to install the new valve. The Board considers that the determinative factor here is the direct association of this valve and piping with the dedicated lateral.

Concerning the buffer tank at Burnaby, the Board finds that this tank can be readily distinguished from the common system facilities on the basis of the level and nature of service provided. The refined petroleum interface material to be stored in this tank is not a separate stream or batch being transported in its own right, but rather an essential part of the various refined petroleum streams which are being given special terminalling service for which they are not being charged. The interface is collected in small amounts before and after each type of refined petroleum. The interface does not go into the pipeline as an identifiable petroleum, but is something generated in the transportation process.

Trans Mountain had indicated that it intends to make alternate use of this buffer tank. In addition to the accumulation of buffers and interfaces accompanying refined petroleum batches, the tank will be used to facilitate shut-downs of the pipeline during refined petroleum deliveries, for pressure control during deliveries of Shell Special Stream directly from the pipeline, and to allow line displacements of the Westridge Dock Line between deliveries onto tankers and Shell Special Stream. However, none of the identified alternate uses cited by Trans Mountain represent chargeable services provided by the pipeline. On the contrary, Shell's Special Stream is given a credit for non-use of delivery tankage. The fact that Trans Mountain is able to make some alternate use of the tank may not mean that this tank does not continue to be dedicated to refined petroleum service. Aside from the extent of these alternate uses, it is not known whether in the absence of this tank, Trans Mountain would need to construct another tank for these purposes. On the other hand, it is known that this tank is absolutely required for the transportation of refined petroleum. Moreover, this tank can only be used for some other purpose when it is not needed first and foremost as a receptacle for the interface material. No other tank is suitable. Use of this tank for material other than refined and semi-refined petroleum would involve a costly changeover which makes its use for revenue generation somewhat limited.

Moreover, Trans Mountain's toll proposal fails to reflect an appropriate sharing of costs. While this buffer tank represents 1/22 of available delivery tankage (i.e. 10 000 m^3 of 220 000 m^3), under Trans Mountain's toll proposal, refined product shippers would contribute approximately 1/100 of the delivery tankage revenue requirement while requiring exclusive access to this tank and preventing its use for other operations directly related to revenue generation.

On balance, the Board is of the view that this buffer tank should be tolled as a dedicated facility to refined petroleum shippers. Notwithstanding its age, there appears to be no particular reason why Trans Mountain has selected this particular tank over any of the other tanks of the same size at Burnaby. Thus, it seems appropriate to determine the cost of this buffer tank on the basis of an allocation of the delivery tankage revenue requirement in the proportion that this tank is to available tank volumes.

Decision

With the exception of a pressure relief valve and a buffer tank, the Board accepts Trans Mountain's proposed toll design for the facilities constructed to transport refined petroleum to Burnaby. The Board finds that the pressure relief valve and related piping located at Burnaby should be tolled as facilities dedicated to Petro-Canada and that the buffer tank, also located at Burnaby, should be tolled on a volumetric basis to all refined petroleum shippers. In addition to the cost of the special interior coating, the Board decides that the cost of the buffer tank will be 1/22 of the delivery tankage revenue requirement, this being the proportion that the buffer tank represents of available delivery tankage.

7.3 Tankage Credits

The current tankage credit methodology was implemented at the direction of the Board in 1990 following extensive discussion between Trans Mountain and its shippers. It was supported by major shippers and associations.

Trans Mountain proposed to adjust its calculation of credits to incorporate increases in the working stock requirement, a change in the function of Sumas tankage and the assignment of a tank to the Company's hydrostatic testing program. Trans Mountain requires users of receipt and delivery tankage to provide a minimum working stock to ensure timely deliveries. Increases in batch sizes for refined petroleum, increased exports via Sumas and requests for crude blending have necessitated an increase in Trans Mountain's working stock requirement from 3.5 to 4.5 days effective 1 July 1993 and to 5.0 days effective 1 January 1994. In addition, Trans Mountain has noted a change in the use of Sumas tankage. Deliveries to Washington State traditionally by-passed Sumas tankage and were given a tankage credit. Increased deliveries to Washington State refineries have resulted in half of the six Sumas tanks being used to store approximately 40 percent of Sumas deliveries. Rather than track tankage usage for each batch delivered to Sumas, Trans Mountain proposed to reduce the tankage credit given to all Sumas deliveries to 60 percent to reflect this change. Finally, Trans Mountain

indicated that it would be using tankage at Edmonton during 1994 to accumulate rain water for its proposed hydrostatic testing program. The cost of this tank would be allocated to all system users.

CAPP challenged the appropriateness of the method Trans Mountain employs to assign credits to shippers who by-pass receipt and delivery tankage. CAPP maintained that Trans Mountain's operations have changed to such an extent in recent years that a complete review of the tankage credit methodology is warranted. CAPP argued that it was unable to ascertain whether the current allocation of tankage costs is appropriate and urged the Board to require Trans Mountain to undertake an independent review of the required level and usage of tankage by the various streams under normal and optimal conditions at an early date. It asked that the study distinguish what is needed from what can be used as a criterion for determining whether there is redundant tankage on the system. In support of its position, CAPP noted that while the annual volume requiring tankage has been significantly reduced with the advent of refined petroleum shipments, Trans Mountain has made no reduction to the required level of tankage. CAPP questioned the prudence of embarking upon an extensive and expensive hydrostatic testing program and suggested that the sole purpose of this program may be to justify the current level of tankage.

Chevron argued that the current system of tankage credits was developed by shippers of another era for a pipeline with a radically different purpose and that the original agreement concerning toll treatment of tankage among the parties is no longer valid. Chevron asserted that there had been a substantial increase in the level of tankage credits since 1990. It indicated that the impact of tankage credits on the light crude toll had increased from 0.89 percent in 1990 to 5.3 percent in 1994. This latter figure was compared to a 10.14 percent decrease in the tolls paid by refined product shippers. Chevron used these comparisons to underscore the point that there had been a fundamental change in the nature of the system since the tankage credit system was looked at in the late 1980s. This increase was occurring despite the fact that Chevron's need for tankage had not increased.

Chevron identified the problem as the derivation of tankage costs as a residual and the inherent assumption that whatever was left was needed by those shippers requiring tankage. Some tankage may now be redundant. It claimed that the inequity of the current method would be exacerbated in 1995, when Chevron would be the only shipper, of the original four, requiring tankage. Chevron asserted that an immediate remedy was required and suggested that, pending an in-depth review, tankage credits either be held in abeyance or reduced to 30 percent based upon its analysis of the incremental impact of the advent of refined petroleum shipments on crude oil tolls. Chevron contended that other shippers should share in the costs of tankage by virtue of their access to it. Chevron proposed that a task force be struck to ascertain the facts from all parties and to enable Trans Mountain to develop a revised method for determining tankage credits. Chevron requested that Trans Mountain be required to file a new proposal with the Board by 31 August 1994. This would enable all parties to provide comments, the Board to adjudicate the proposals and ultimately, set new tolls to be effective 1 January 1995, the date by which Imperial was expected to close its Burnaby refinery.

Imperial, Petro-Canada and Shell were satisfied with the fairness of the current method of computing tankage credits. They noted that Chevron was the only party who "truly" objected and asserted that its intent was to undermine established toll design principles by revising tankage credits so as to arbitrarily re-allocate other system costs to refined petroleum. At the time the methodology was developed, these changes were anticipated and Chevron had the opportunity to comment on the approaches then being considered. They noted that refined petroleum shippers were required to

provide their own tankage and that in the case of Burnaby this was because Trans Mountain was unable to accommodate their needs. In their view, it was only fair that when shippers incur a cost to provide an element of basic service, they should receive a credit.

In final argument, Trans Mountain asserted that the decline in usage was contemplated at the time the method was negotiated among its shippers. Trans Mountain conceded that some fine-tuning of the credits may be warranted but maintained that the proper forum for this was the Shipper Advisory Group of which Chevron is a member. Trans Mountain opposes the notion that there is a need for a task force to determine a new toll design. Trans Mountain noted that CAPP has not suggested any specific changes to the current methodology and submitted that Chevron's proposal to reduce the credit to 30 percent was arbitrary. Trans Mountain contended that its current method is an appropriate reflection of the user-pay principle. Trans Mountain found questions raised concerning the level of tankage to be somewhat academic as its evidence indicates that all available tankage is required to operate the pipeline.

Views of the Board

The Board ordered Trans Mountain to implement a tankage credit methodology in its OH-1-87 decision. Trans Mountain responded with a proposal in a Class 2 application for new tolls effective 1 January 1989. In that proceeding, shipper opposition caused Trans Mountain to withdraw its initial proposal involving variable credit factors in favour of a uniform 50 percent credit factor for both receipt and delivery tankage. The Board accepted this method on a temporary basis, noting that this approach had general support. When Trans Mountain proposed its current method in a Class 2 application for 1991 tolls, it stated that it had the agreement of APMC and all members of the predecessor associations of CAPP. In addition, Shell, Petro-Canada, Esso and Chevron provided letters of support. Chevron's letter stated that it considered Trans Mountain's proposal to be fair and equitable. Based upon this apparent agreement, the Board accepted this methodology.

At a May 1990 meeting of the Shipper Advisory Committee, Trans Mountain showed the impact on 1990 tolls of changing from the initial 50 percent credit factors to credit factors of 77 percent for receipt tankage and 62.5 percent for delivery tankage under the new method. The impact of this change on the light crude toll from Edmonton to Burnaby was shown to be an increase of 0.89 percent. In argument, Chevron referred to this percentage to demonstrate that at that time tankage credits were expected to have a *de minimus* impact on the light crude toll.

The Board has determined that 1.21 percent represents the comparable current equivalent of this impact. The Board finds that since 1991, the level of tankage credits has remained surprisingly stable in both nominal and percentage terms and that there is no apparent urgency to change the methodology for 1993. Likewise, the Board is not persuaded that Chevron's approach of allocating incremental costs and revenue to refined petroleum is preferable. Consequently, the Board is of the view that the existing methodology should continue to be used for the 1993 and 1994 test years.

Nonetheless, it is evident that there have been substantial changes in the operation of the Trans Mountain system since the current tankage credit method was put in place.

Not all of these changes could have been foreseen by the affected parties. The Board notes that two of the four original shippers closed their Vancouver area refineries already with a third planning to do the same. As well, the mix of petroleum shipped on Trans Mountain is now significantly different from what it was even a few years ago. At this time, the Board is unable to make a definitive assessment of whether or not all tanks are used or useful to the operations of the Trans Mountain pipeline system. In the Board's opinion, the existing methodology should be reviewed, so that, among other things, tankage credits would not become a factor which skew the economics of refining at Vancouver. For these reasons, the Board is of the view that an independent review of tankage should be carried out.

Decision

The Board approves the continuation of Trans Mountain's existing methodology for determining tankage credits for 1993 and 1994.

In the light of the closure of two Vancouver area refineries and the planned closure of a third, and the concerns expressed by certain parties in this proceeding, the Board directs Trans Mountain to carry out an independent review of tankage use, costs and credits. Trans Mountain is directed to file proposed terms of reference for this review with the Board for approval by 15 April 1994. The Board expects that the Company will file a review report with the Board, serving copies on intervenors to this proceeding, within six months of the date on which the Board approves the terms of reference for the review.

7.4 Working Stock Component of Line Fill

Trans Mountain indicated that its line fill policy requires shippers to maintain a minimum supply of petroleum in its receipt and delivery tankage for accommodating scheduling changes ("working stock"). This component of line fill affects the level of tankage credits which is included in tolls for volumes that routinely bypass tankage.

Trans Mountain applied to base 1993 and 1994 tolls on a working stock requirement of 4.0 days and 5.0 days, respectively. Recent changes in Trans Mountain's pipeline operations such as new shipments of refined petroleum to Vancouver, higher deliveries to Washington State refineries and the closure of two Vancouver refineries had resulted in a need to increase working stock volume from the current 3.5 days to 4.5 days. Trans Mountain also expected increases in total throughput for 1994, and therefore required 5.0 days of working stock.

Petro-Canada agreed with the proposed level of working stock for 1993, but suggested that Trans Mountain should continue with the level of 4.0 days in 1994. Shell concurred with Petro-Canada.

Imperial stated that even if Trans Mountain's proposed increase seemed reasonable for 1993 based on operating experience, a cost/benefit analysis should be done in order to justify any increase in the working stock requirement of line fill.

Chevron concurred with Trans Mountain's proposed level of working stock for both 1993 and 1994 on the basis that Chevron was not in a position to determine specific levels of working stock. However, it agreed that recent increases in both crude oil export to Washington and deliveries of refined petroleum products to Burnaby could justify increases in the amount of working stock.

Views of the Board

The Board notes the large increase in the working stock proposed for 1993 and 1994 and the fact that it imposes both direct and indirect costs on shippers. Nonetheless, the Board is persuaded that Trans Mountain requires the proposed working levels to ensure the efficient operation of its pipeline. The Board encourages the Company to monitor its requirements closely and strive to ensure that this requirement is kept at its lowest practical level.

Decision

The Board accepts a working stock requirement of 3.5 days as of 1 January 1993, increasing to 4.5 days effective 1 July 1993 and to 5.0 days effective 1 January 1994.

7.5 Interim Toll Refund Methodology

CAPP was concerned that Trans Mountain had an incentive to delay filing a toll application until it was virtually assured that it would exceed the allowed rate of return on equity by two percent or more. CAPP proposed that mid-year toll adjustments be based upon a residual revenue requirement calculated by deducting toll revenues for the year to date. This was seen as a remedy to the apparent discretion available to Trans Mountain to delay filing a toll application. CAPP asserted that this does not constitute retroactive rate-making as the tolls charged prior to the commencement of interim tolls would not be affected.

On the other hand, CAPP argued that it is not fair or equitable to exclude parties who shipped in the part of the year prior to the establishment of interim tolls from a subsequent toll adjustment since the final adjustment reflects the cumulative impact of all shippers during the year. CAPP recognized that practical and legal impediments existed to ensuring that financial impacts are attributed to the appropriate party. Therefore, it considered the allocation of the adjustment to a prospective period of six months or more as preferable.

Trans Mountain objected to CAPP's allegation that there was impropriety in the manner in which it abided by the toll adjustment trigger mechanism. The Company stated that it must rely on its shippers to provide the necessary information to update its throughput forecasts. Trans Mountain asserted that CAPP's proposal to deduct revenues for a prior period from the revenue requirement failed to match costs and service. This same logic could be applied to justify going back to a prior year's earnings to adjust subsequent tolls. Trans Mountain found CAPP's proposal to constitute retroactive rate-making.

As to the disposition of revenue variances resulting from a period of interim tolls, Trans Mountain distinguished the situation where there had been an under-recovery from the one where there had been an over-recovery. Trans Mountain agreed with CAPP that revenue shortfalls should be recovered on a

prospective basis from cost of service. In the case of over-recovery, the Company preferred the existing method of issuing refunds directly to shippers who had paid the interim tolls by adjusting their billings.

Views of the Board

The Board agrees with Trans Mountain that the use of a residual revenue requirement for a mid-year toll adjustment would constitute retroactive rate-making. Moreover, application of this method would be tantamount to replacing fixed tolls with a cost of service type tariff.

The Board recognizes that there may be some apparent unfairness in allocating adjustments to shippers in a partial test year when all shippers in a test year have contributed to the need for this adjustment. However, this is a consequence of a fixed toll regime which has been put in use because of the many advantages of this regulatory approach. In this instance, tolls have been charged on an interim basis since 1 January 1993, a period of more than 12 months. Therefore, the Board believes that it is especially appropriate to adjust actual shipper billings during the interim period to the level of final tolls.

Decision

The Board finds that the current interim toll refund methodology, which entails issuing refunds to shippers who paid the tolls charged on an interim basis, remains appropriate.

7.6 Tariff Revisions

Trans Mountain proposed certain refinements in its tariff wording to accommodate shipments of refined petroleum and MTBE. No intervenor commented on this matter.

Decision

The Board approves the wording changes proposed by Trans Mountain to its tariffs which were largely to reflect the transportation of MTBE and refined petroleum to Burnaby.

Chapter 8

Interim and Final Tolls

By Order TOI-5-92, the Board approved tolls that Trans Mountain may charge on an interim basis, effective 1 January 1993, for transportation services that the Company provides. Trans Mountain had applied for these tolls in a Class 2 toll application dated 16 September 1992.

During the hearing, Trans Mountain requested that the Board issue a final toll order by 7 February 1994 in order to facilitate the preparation of 1993 financial statements and to accommodate the annual general meeting of shareholders scheduled for 18 April 1994.

On 7 February 1994, the Board issued Order TO-2-94 with its decisions on matters considered by it in the RH-3-93 proceeding in advance of releasing these Reasons for Decision. In the 7 February 1994 Decision, the Board directed Trans Mountain as follows:

> **Decision**
>
> **The Board intends to approve final tolls for 1993 and 1994 which are uniform throughout the respective calendar years. Once final tolls for 1993 and 1994 have been approved, Trans Mountain is required to refund to its shippers the difference between the tolls resulting from these decisions and those approved on an interim basis in Order TOI-5-92, together with carrying charges at an annual interest rate of six percent.**

Chapter 9

Further Filings by Trans Mountain

In its 7 February 1994 Decision, the Board did not include a final approved rate base, cost of service or tolls for the 1993 and 1994 test years. Accordingly, Trans Mountain was directed to file for Board approval revised information reflecting the Board's decisions as follows:

> **Decision**
>
> **The Board directs Trans Mountain to file for approval revised information on rate base and cost of service together with supporting schedules reflecting the Board's decisions contained herein. These revisions and the tolls and tariffs are to be filed with the Board forthwith and served on intervenors to the RH-3-93 proceeding.**
>
> **Further, in the event that the Board approves the Stage II Expansion, the Board directs Trans Mountain to file immediately revised forecasts of throughput, cost of service, rate base and new tolls for 1994 reflecting the impact of the Expansion.**

On 21 February 1994, Trans Mountain filed revised tolls for 1993 and 1994. For 1994, Trans Mountain removed the salary and overhead pertaining to the construction of the Stage II Expansion facilities from its capital accounts and included them as operating and maintenance expenses for 1994. By letter dated 4 March 1994, the Board accepted this accounting treatment for the purposes of the RH-3-93 proceeding at that point in time. As well, the Board approved the tolls filed for 1993 and 1994. For transporting light crude from Edmonton to Burnaby, the approved 1993 toll is 11.8 percent lower than the 1992 toll approved in the RH-3-91 Reasons for Decision, but the toll for 1994 is 5.3 percent higher than for 1993.

Chapter 10

Disposition

The foregoing chapters, together with the Board's Decision dated 7 February 1994 (Appendix I), constitute our Decision and Reasons for Decision on matters considered in the RH-3-93 proceeding.

A. Côté-Verhaaf
Presiding Member

R. Illing
Member

R. L. Andrew, Q.C.
Member

Calgary, Alberta
March 1994

Appendix I

NEB Decision of 7 February 1994

7 February 1994

Mr. G.A. Irving
Vice President, Secretary and General Counsel
Trans Mountain Pipe Line Company Ltd.
900 - 1333 West Broadway
Vancouver, British Columbia
V6H 4C2

Dear Mr. Irving:

Re: Hearing Order RH-3-93
Trans Mountain Pipe Line Company Ltd. ("Trans Mountain")
Application for 1993 and 1994 Tolls

Attached is the Board's Decision with respect to matters considered in the RH-3-93 proceeding. The Board is issuing this Decision in advance of releasing the RH-3-93 Reasons for Decision on Trans Mountain's application for 1993 and 1994 tolls, as requested by the company.

Trans Mountain is required to file for Board approval revised tolls and tariffs reflecting the Board's decisions set out in the attachment to this letter. These toll and tariff revisions are to be filed with the Board forthwith and served on intervenors to the RH-3-93 proceeding.

Trans Mountain is directed to serve forthwith a copy of this letter, together with the attachment, on all shippers on the Trans Mountain system.

Yours truly,

J.S. Richardson
Secretary

Attach.

National Energy Board
Decision
Trans Mountain Pipe Line Company Ltd.
RH-3-93

IN THE MATTER OF the *National Energy Board Act* and the Regulations made thereunder, and

IN THE MATTER OF an application by Trans Mountain Pipe Line Company Ltd. for certain orders respecting its tolls pursuant to subsection 19(2) and Part IV of the *National Energy Board Act*; and

IN THE MATTER OF the National Energy Board Hearing Order RH-3-93.

Heard in Vancouver, British Columbia on 29 November to 8 December 1993 and in Calgary, Alberta on 15 and 16 December 1993.

BEFORE:

A. Côté-Verhaaf
Presiding Member

R. Illing
Member

R. L. Andrew, Q.C.
Member

The Board's decisions with respect to matters considered in the RH-3-93 proceeding are as follows:

(For the convenience of parties, these decisions are identified by the relevant chapter and section headings as they will appear in the RH-3-93 Reasons for Decision.)

1. Background and Application

2. Revenue Requirement

2.1 Revenue Requirement for 1993

2.2 Revenue Requirement for 1994

3. Rate Base and Depreciation

3.1 Plant Additions and Retirements for 1993 and 1994

The Board directs Trans Mountain to remove from the applied-for plant in service the forecast amounts for projects which have been denied or which have not been approved by the Board under Part III of the NEB Act as of 1 February 1994.

3.2 Cash Working Capital

The Board accepts the results of Trans Mountain's lead/lag study undertaken for the purpose of determining the cash working capital component of the forecast rate base for 1993 and 1994. The Board directs Trans Mountain to make the necessary adjustments to the forecast allowance for working capital to give effect to the Board's decisions contained in this Decision.

3.3 Net Plant in Service Adjustment Mechanism

The Board finds that a net plant in service adjustment mechanism is not necessary at this time.

3.4 Depreciation Expense

The Board accepts the depreciation rates used by Trans Mountain for the 1993 and 1994 test years and directs Trans Mountain to carry out a depreciation study and to file the results of this study with the Board by 1 March 1995.

3.5 Miscellaneous

4. Operating Costs

4.1 Salaries, Wages and Employee Benefits

4.1.1 Person Year Utilization

The Board accepts the requested person year utilization levels for each of the 1993 and 1994 test years.

4.1.2 Year-over-year Salary and Wage Increases

The Board approves the requested year-over-year salary and wage increase of 2.5 percent for each of the 1993 and 1994 test years.

4.1.3 Employee Benefits

The Board approves the amounts of employee benefits requested for the 1993 and 1994 test years.

4.2 Other Expenses

With the exception of the operating expenses related to the Stage II Expansion facilities, the Board approves the applied-for other operating and maintenance expenses and operating costs for the 1993 and 1994 test years.

4.3 Allocation of Costs to Non-utility Activities

The Board finds that the current methodologies for allocating costs to non-utility activities remain appropriate. However, the Board disallows 50 percent of the severance payments to the former Chief Executive Officer for the purposes of determining the revenue requirement of Trans Mountain.

5. Income Taxes

5.1 Normalized and Flow-through Method of Accounting

The Board finds that the provision for income taxes shall be calculated on a flow-through basis commencing 1 January 1993. With respect to the accumulated deferred income tax balance of approximately $23.6 million as at 31 December 1992, the Board directs that no drawdown and amortization to cost of service be made at this time.

5.2 Income Tax Provision for 1993 and 1994

The Board directs Trans Mountain to calculate its provision for income taxes for 1993 and 1994 on a flow-through basis to reflect the decisions contained in this Decision.

6. Capital Structure and Cost of Capital

6.1 Common Equity Ratio

The Board approves a deemed common equity ratio of 47.5 percent for the 1993 and 1994 test years.

6.2 Rate of Return on Common Equity

The Board approves a rate of return on common equity for Trans Mountain of 11.5 percent for 1993 and 11.25 per cent for 1994.

6.3 Funded Debt

For the 1993 test year, the Board approves funded debt amounting to 50 percent of Trans Mountain's capitalization (the sum of rate base and construction work in progress) and a cost rate of 10.57 percent. With respect to 1994, the Board approves a funded debt amount of $96.8 million and a cost rate of 10.62 percent.

6.4 Unfunded debt

The Board approves unfunded debt amounting to 2.5 percent of the Company's capitalization and a cost rate of 8.5 percent for the 1993 test year. Regarding 1994, the Board approves an unfunded debt amount required to balance Trans Mountain's capitalization and a cost rate of 8.25 percent.

6.5 Rate of Return on Rate Base

Based on the decisions herein, the Board estimates the allowable rate of return on rate base at 10.96 percent for 1993 and 10.83 percent for 1994.

7. Toll Design and Tariff Matters

7.1 Throughput Forecasting

7.1.1 Forecasting Methodology

The Board finds that the current throughput forecasting methodology employed by Trans Mountain remains appropriate.

7.1.2 Throughput Forecasts for 1993 and 1994

The Board approves Trans Mountain's revised forecast of 33 687 cubic metres per day for 1993 and of 34 300 cubic metres per day for 1994, which excludes deliveries associated with the proposed Stage II Expansion, as shown in Exhibit B-35.

7.1.3 Export Throughput Deferral Account

The Board finds that the Export Throughput Deferral Account, as proposed by the Canadian Association of Petroleum Producers, is not necessary at this time.

7.2 Refined Petroleum Facilities

With the exception of a pressure relief valve and a buffer tank, the Board accepts Trans Mountain's proposed toll design for the facilities constructed to transport refined petroleum to Burnaby. The Board finds that the pressure relief valve and related piping located at Burnaby should be tolled as facilities dedicated to Petro-Canada and that the buffer tank also located at Burnaby should be tolled on a volumetric basis to all refined petroleum shippers. In addition to the cost of the special interior coating, the Board decides that the cost of the buffer tank will be 1/22 of the delivery tankage revenue requirement, this being the proportion that the buffer tank represents of available delivery tankage.

7.3 Tankage Credits

The Board approves the continuation of Trans Mountain's existing methodology for determining tankage credits for 1993 and 1994.

In the light of the closure of two Vancouver area refineries and the planned closure of a third, and the concerns expressed by certain parties in this proceeding, the Board directs Trans Mountain to carry out an independent review of tankage use, costs and credits. Trans Mountain is directed to file proposed terms of reference for this review with the Board for approval by 15 April 1994. The Board expects

that the Company will file a review report with the Board, serving copies on intervenors to this proceeding, within six months of the date on which the Board approves the terms of reference for the review.

7.4 Working Stock Component of Line Fill

The Board accepts a working stock requirement of 3.5 days as of 1 January 1993, increasing to 4.5 days effective 1 July 1993 and to 5.0 days effective 1 January 1994.

7.5 Interim Toll Refund Methodology

The Board finds that the current interim toll refund methodology, which entails issuing refunds to shippers who had paid the tolls charged on an interim basis, remains appropriate.

7.6 Tariff Revisions

The Board approves the wording changes proposed by Trans Mountain to its tariffs which were largely to reflect the transportation of MTBE and refined petroleum to Burnaby.

8. Interim and Final Tolls

The Board intends to approve final tolls for 1993 and 1994 which are uniform throughout the respective calendar years. Once final tolls for 1993 and 1994 have been approved, Trans Mountain is required to refund to its shippers the difference between the tolls resulting from these decisions and those approved on an interim basis in Order TOI-5-92, together with carrying charges at an annual interest rate of six percent.

9. Further Filings by Trans Mountain

The Board directs Trans Mountain to file for approval revised information on rate base and cost of service together with supporting schedules reflecting the Board's decisions contained herein. These revisions and the tolls and tariffs are to be filed with the Board forthwith and served on intervenors to the RH-3-93 proceeding.

Further, in the event that the Board approves the Stage II Expansion, the Board directs Trans Mountain to file immediately revised forecasts of throughput, cost of service, rate base and new tolls for 1994 reflecting the impact of the Expansion.

The foregoing decisions, together with Order TO-2-94, constitute our Decision on matters considered in the RH-3-93 proceeding.

A. Côté-Verhaaf
Presiding Member

R. Illing
Member

R. L. Andrew, Q.C.
Member

Calgary, Alberta
February 1994

Order TO-2-94

IN THE MATTER OF the *National Energy Board Act* ("the Act") and the Regulations made thereunder; and

IN THE MATTER OF a Class 3 toll application by Trans Mountain Pipe Line Company Ltd. ("Trans Mountain") dated 30 September 1993, as amended, for approval of interim and final tolls for 1993 and 1994 pursuant to subsection 19(2) and Part IV of the Act and filed with the National Energy Board ("the Board") under File No. 4200-T004-4.

BEFORE the Board on 7 February 1994.

WHEREAS Trans Mountain, by application dated 30 September 1993, as amended, applied to the Board for certain orders under subsection 19(2) and Part IV of the Act fixing tolls that Trans Mountain may charge in 1993 and 1994 for the transportation of crude oil and other liquid hydrocarbons;

AND WHEREAS Trans Mountain's 30 September 1993 application is intended to supersede the Company's Class 2 application of 16 September 1992, as amended, with respect to 1993;

AND WHEREAS Trans Mountain has been charging the tolls applied for in the above-mentioned Class 2 application and approved by the Board in Order TOI-5-92 dated 17 December 1992 on an interim basis;

AND WHEREAS the Board held a public hearing pursuant to Hearing Order RH-3-93, as amended, in Vancouver, British Columbia commencing 29 November 1993 and in Calgary, Alberta;

AND WHEREAS the Board's decisions on matters considered in the RH-3-93 proceeding are set out in a Decision dated 7 February 1994 and in this Order;

IT IS ORDERED THAT:

1. Trans Mountain shall calculate new tolls in accordance with the decisions set out in the Decision dated 7 February 1994 and in this Order and shall file with the Board forthwith for approval and serve on intervenors to the RH-3-93 proceeding, new tariffs implementing these new tolls;

2. Trans Mountain shall, for accounting and toll-making and tariff purposes, implement procedures to conform with the Board's decisions outlined in the Decision dated 7 February 1994;

3. Order TOI-5-92, which authorized tolls that Trans Mountain may charge on an interim basis, effective 1 January 1993, is revoked and the tolls that have been authorized thereunder are disallowed as of the end of the day on 28 February 1994;

4. Trans Mountain shall charge on a final basis for 1993 and 1994 tolls authorized by paragraph 1 of this Order;

5. The Board's decisions set out in the Decision dated 7 February 1994 and the changes to Trans Mountain's tariffs authorized in this Order are to take effect on a final basis as of 1 January 1993, unless the Board states otherwise;

6. Trans Mountain is directed to refund that part of the tolls charged by the Company under Order TOI-5-92 which is in excess of the tolls determined by the Board to be just and reasonable in this Order together with carrying charges on the amount so refunded at an annual interest rate of six percent;

7. Trans Mountain shall file with the Board, and serve on intervenors to the RH-3-93 proceeding, new tariffs and tolls conforming with the decisions set out in the Decision dated 7 February 1994 and with this Order; and

8. Those provisions of Trans Mountain's tolls and tariffs, or any portion thereof, that are contrary to any provision of the Act, to the Board's Decision dated 7 February 1994 or to any Order of the Board including this Order, are hereby disallowed.

NATIONAL ENERGY BOARD

J.S. Richardson
Secretary

Appendix II

Order TOI-5-92

IN THE MATTER OF the *National Energy Board Act* ("the Act") and the Regulations made thereunder; and

IN THE MATTER OF an application dated 16 September 1992 and amended 1 December 1992 by Trans Mountain Pipe Line Company Ltd. ("TMPL") for an adjustment of its tolls; pursuant to subsection 19(2) and Part IV of the Act, filed with the Board under File No. 4400-T004-13.

Before the Board on Thursday, 17 December 1992.

WHEREAS TMPL has filed an application dated 16 September 1992 for an order pursuant to PART IV of the Act to adjust its tolls effective 1 January 1993;

WHEREAS TMPL has filed an amended application dated 1 December 1992 for an order pursuant to PART IV of the Act to adjust its tolls effective 1 January 1993;

AND WHEREAS the Board has decided that the applied-for tolls should be charged on an interim basis pending a decision on the application;

THEREFORE, IT IS ORDERED THAT,

Pursuant to subsection 19(2) and section 59 of the Act:

The tolls set out in Schedule "A" attached hereto are to be charged on an interim basis effective 1 January 1993 and will remain in effect until the day the Board's order on TMPL's final tolls for 1993 comes into effect.

NATIONAL ENERGY BOARD

J.S. Richardson
Secretary

Attachment

Schedule "A"

Tolls To Be Charged On An Interim Basis
Effective 1 January 1993

Tolls for Petroleum having a density not exceeding 904 kg/m^3 at 15 degrees Celsius

From	To	$/m^3$
Edmonton	Sumas*	8.066
Edmonton	Burnaby	9.538
Edson	Sumas*	6.761
Edson	Burnaby	8.238
Kamloops	Sumas*	2.607
Kamloops	Burnaby	4.084

Toll for Heavy Petroleum - Petroleum having a density greater than 904 kg/m^3 will be accepted at the tolls set out above plus a surcharge of 20 percent.

Toll for Butane - Butane blended with other petroleum by direct injection into the pipe line at Edmonton will be transported to Burnaby at a toll of $8.277/$m^3$.

Gathering Charge - For gathering service from the Edson Gas Plant, a charge of $0.686/$m^3$ will be made in addition to the above tolls.

Westridge Loading Charge - A loading charge of $0.251/$m^3$ will be made for all petroleum loaded out of Burnaby over the Westridge marine loading wharf.

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* a point on the International Boundary near Sumas, British Columbia, where the pipe line of carrier connects with that of Trans Mountain Oil Pipe Line Corporation.

Schedule "A" (cont'd)

Rates and Charges for the Transportation and Delivery of Refined and Partially Refined Petroleum

1. Volumetric Toll

Description	From	To	Toll $/m^3
Refined Petroleum	Edmonton	Kamloops	5.987
Stove Oil	Edmonton	Burnaby	7.827
Regular Gasoline	Edmonton	Burnaby	8.595
Chevron MTBE	Edmonton	Burnaby	9.515
Imperial special stream	Edmonton	Burnaby	8.769
Petro-Canada special stream	Edmonton	Burnaby	8.747
Petro-Canada diesel	Edmonton	Burnaby	7.827
Petro-Canada premium gasoline	Edmonton	Burnaby	8.595
Shell special stream	Edmonton	Burnaby	8.595
Shell diesel	Edmonton	Burnaby	8.595
Shell premium gasoline	Edmonton	Burnaby	7.827

2. Charge for Dedicated Facilities

Each shipper will pay a monthly charge in respect to facilities of carrier at Edmonton, Kamloops or Burnaby dedicated exclusively to the transportation and delivery of refined petroleum, Shell special stream, Petro-Canada special stream, or MTBE, as the case may be, for that shipper. The monthly charges will be 1/12 of the forecast annual revenue requirements calculated in accordance with the methodology used in determining the volumetric toll, subject to retrospective adjustment on or before February 15 of the following year to compensate for any differences between actual annual revenue requirements and forecast annual revenue requirements.

Appendix III

List of Issues

This list of issues is intended to assist all parties in defining the key issues to be addressed at the oral hearing. This list will not preclude the Board from dealing with other matters which are normally raised by virtue of the Board's mandate pursuant to Part IV of the Act.

At the oral hearing, the Board will consider, *inter alia,* the following issues:

1. What is the appropriate rate of return on common equity for the 1993 and 1994 test years?

2. What is the appropriate capital structure for TMPL's utility operation for the 1993 and 1994 test years?

3. What is the appropriate rate for unfunded debt for the 1993 and 1994 test years?

4. Is the normalized method of accounting for income taxes still appropriate?

5. Whether TMPL's currently approved interim toll refund methodology remains appropriate.

6. Whether TMPL's proposed toll methodology for the refined petroleum facilities is appropriate.

7. Whether the currently approved method for calculating tankage credits remains appropriate.

8. Whether TMPL's current throughput forecasting methodology remains appropriate.