

State of Alaska

Department of Revenue

Tax Division

Computation of a Cost-of-Capital Allowance

under 15 AAC 55.196

Incorporating Depreciation and Return on Invested Capital

for Marine Vessels and Improvements

**Third** [SECOND] Edition

**Dated** \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ [2003]

## Introduction

This publication sets out the methodology to be used by producers in computing the cost-of-capital allowance for marine vessels and improvements under 15 AAC 55.196. This methodology provides for separately computing a cost-of-capital allowance for each individual vessel, including improvements to that vessel, to which 15 AAC 55.196 applies.

Computation of an allowance is performed using a series of input schedules and calculation tables that are generally organized on a calendar year basis. The input schedules consist of information supplied by the producer. The calculation tables utilize the information in the input schedules to derive the allowance.

In all schedules and tables, unless otherwise specified, each row corresponds to a calendar year. The rows are set out in chronological order starting with the earliest year to which the schedule or table in question applies. The columns are organized by category of data or computation, which are described below in the Instructions for Input Schedules and Instructions for Calculation Tables.

The input schedule and calculation table forms are set out following the instructions. An illustrative example is also provided.

## Summary of Input Schedules

### Input Schedule 1: Producer Pre-Service Inputs

Input Schedule 1 provides for producer inputs of information pertaining to each relevant year before the vessel begins its useful life, including pre-service capital construction fund (“CCF”) deposits and earnings, capitalized basis, weighted average cost of capital (“WACC”), income tax rates, taxable and non-taxable other revenues and expenditures, and whether the taxpayer is in alternative minimum tax status.

### Input Schedule 2: Producer Post-Service Inputs

Input Schedule 2 provides for producer inputs of information pertaining to each tax year after the vessel begins its useful life, including portion of year in service, income tax rates, WACC, years of remaining life for the vessel, capital recovered under 15 AAC 55.195, expenditures for improvements not expensed under 15 AAC 55.196(a), number of days in the year, previous annual cost of capital, and whether the taxpayer is in alternative minimum tax status.

### Input Schedule 3-1: Expected Future Schedules - Depreciation

Input Schedule 3-1 provides for each tax year the producer’s expected future yearly schedules for depreciation.

### Input Schedule 3-2: Expected Future Schedules – Post-Service CCF Deposits

Input Schedule 3-2 provides for each tax year the producer’s expected future yearly schedules for post-service CCF deposits.

### Input Schedule 3-2A: Expected Future Alternative Minimum Tax Status

Input Schedule 3-2A provides for each year the producer’s expectations on whether they will be in alternative minimum tax status.

### Input Schedule 3-3: Expected Future Schedules – CCF Withdrawals

Input Schedule 3-3 provides for each tax year the producer’s expected future yearly schedules for CCF withdrawals.

Input Schedule 3-4: Expected Future Schedules – Other Revenues and Expenditures – Tax Benefits

Input Schedule 3-4 provides for each tax year the producer's expected future yearly schedules for other revenues and expenditures from tax benefits.

Input Schedule 3-5: Expected Future Schedules – Other Revenues and Expenditures – Non-Taxable Cash Flows

Input Schedule 3-5 provides for each tax year the producer's expected future yearly schedules for other revenues and expenditures from non-taxable events.

Input Schedule 3-6: Expected Future Schedules – Other Revenues and Expenditures – Taxable Cash Flow

Input Schedule 3-6 provides for each tax year the producer's expected future yearly schedules for other revenues and expenditures from taxable events.

Input Schedule 4: Cost-of-Capital Allowance Days

Input Schedule 4 provides for producer inputs of information pertaining to the portion of the year the cost-of-capital is allowed, including days of allowable service, days of lay-up, and the number of days in dry-dock.

# Instructions for Input Schedules

## General Instructions

Each input schedule prepared for any tax year must also include the inputs for previous tax years.

If information contained in a previously filed input schedule is corrected either by the producer or the department, the producer shall file corrected input schedules for all affected years, and calculate the cost-of-capital allowance for those years in accordance with this manual. Calculation Table 9 specifies how to incorporate the corrected numbers for previous years in calculating the cost-of-capital allowance.

## Instructions for Input Schedule 1 Producer Pre-Service Inputs

### Column 1: Year Prior to Beginning of Useful Life

Entered in this column are the applicable years before the beginning of the vessel's useful life or, in the case of a used vessel acquired by a producer, before the beginning of the vessel's remaining useful life for that producer. The beginning of a vessel's useful life or remaining useful life for a producer is determined in accordance with generally accepted accounting principles. If a vessel starts in the middle of a calendar year, the last calendar year prior to the beginning of the vessel's useful life will also be the same calendar year the vessel begins its useful life. That year is deemed year "zero."

### Column 2: CCF Deposits and Earnings

This column consists of amounts deposited by the producer into a Capital Construction Fund ("CCF") account for the vessel.

If a producer has made contributions into a CCF account that has more than one vessel identified as a program objective, then the amount of the producer's CCF deposit must be allocated between vessels. The amount allocated to a vessel is determined as if deposits to the account are made to correspond to the chronological order in which the producer's program objective vessels come into service, unless there is clear and convincing evidence to the contrary. Such evidence might include the producer's capital construction fund agreement with the U.S. Maritime Administration. The amount of the producer's capital construction fund earnings realized on the capital construction fund account and retained in the capital construction fund account is allocated to the vessel proportional to the amount of the deposit allocated to the vessel.

"Capital construction fund" means a capital construction fund authorized under 46 U.S.C. app. §1177 and subject to 26 U.S.C. §7518.

### Column 3: Capitalized Investment Basis

This column consists of the amount invested in the vessel and any capital improvement(s) to it completed during **the applicable** calendar year [2002], not to exceed the cost of the vessel and capital improvement(s), as capitalized by the vessel's actual or effective owner in accordance with generally accepted accounting principles. The amount of capital improvements included in the capitalized investment basis does not include an amount expensed under 15 AAC 55.195(h).

Column 4: Weighted Average Cost of Capital (WACC)

The WACC is the weighted average cost of capital using the capital asset pricing model (CAPM), ordinary least squares (OLS) for the industrial composite for SIC code number 4924, as reported in **the following publications:**

**From January 1, 2003 through February 28, 2017 - [IBBOTSON ASSOCIATES] "Cost of Capital Yearbook" published for the previous calendar year by Ibbotson Associates, 225 North Michigan Avenue, Suite 700, Chicago, Illinois 60601 [PUBLISHED DURING THE PREVIOUS CALENDAR YEAR].**

**From March 1, 2017 through December 31, 2018 – "Valuation Handbook, Industry Cost of Capital" published for the previous calendar year by Duff & Phelps, LLC, 311 South Wacker Drive, Suite 4200, Chicago, IL 60606.**

**On or after January 1, 2019 – "Cost of Capital Navigator" by Duff & Phelps, LLC at <https://costofcapital.duffandphelps.com>, as published on the date closest to March 31 of the previous calendar year.**

For the years 1995 through 2002 the appropriate WACC values are as follows:

- 1995	8.93 %
- 1996	8.29 % <sup>***</sup>
- 1997	8.30 %
- 1998	8.93 %
- 1999	8.17 %
- 2000	7.12 %
- 2001	8.75 %
- 2002	7.10 %,

except that for a vessel that was subject to 15 AAC 55.195(f) or a capitalized improvement that was subject to 15 AAC 55.195(h) during 2002, the WACC value for 2002 is 7.50%.

[THE COST OF CAPITAL YEARBOOK IS PUBLISHED BY IBBOTSON ASSOCIATES, 225 NORTH MICHIGAN AVENUE, SUITE 700, CHICAGO, ILLINOIS 60601.]

Column 5: Regular Tax Rate

The tax rate is the highest federal corporate income tax rate in effect for the calendar year.

If the federal income tax rate changes during the year, the producer shall apply the new tax rate to that portion for the year that equals the number of days in the year that include

and follow the day on which the new tax rate takes effect, divided by the total number of days in that year.

#### Column 6: Other Revenues and Expenditures - Taxable

This entry includes the pre-tax value of any other taxable revenues and expenditures associated with the vessel, including cash flows associated with sale / leaseback agreements, or federal tax credits, obligations, deductions, or benefits under 26 U.S.C. (Internal Revenue Code). The amount for any year is entered as the revenues minus the expenditures.

#### Column 7: Other Revenues and Expenditures – Non-Taxable

This entry includes the value of any other non-taxable revenues and expenditures associated with the vessel, including cash flows associated with sale / leaseback agreements, or synthetic leases. Examples are the purchase price of a vessel paid to the producer by a lessor who intends to lease the vessel back to the producer, if the proceeds are not taxable to the producer. The amount for any year is entered as the revenues minus the expenditures.

#### Column 8: Other Revenues and Expenditures – Tax Benefits

This entry includes the value of any other transactions or events whose only cash flow effect is their tax consequences. Included are the producer's pre-tax amounts of tax benefits associated with the vessel such as depreciation or CCF withdrawals. The amount for any year is entered as the revenues minus the expenditures.

#### Column 9: Alternative Minimum Tax Status

This entry indicates whether the producer is in alternative minimum tax status for federal corporate income taxes. A "1" indicates the producer is in alternative minimum tax status. A "0" indicates they are not.

"Alternative minimum tax" means the tax imposed under 26 U.S.C. §55. A producer would be considered to be subject to the alternative minimum tax for any tax year in which its current federal income tax liability is determined by reference to its tentative minimum taxable income. Generally, a taxpayer would be considered to be subject to the alternative minimum tax for a tax year if there is a minimum tax credit available for carryforward to future years, or if its use of tax credits was limited by reference to its tentative minimum tax.

#### Column 10: Alternative Minimum Tax Rate

This entry is the alternative minimum tax rate for federal corporate income taxes in effect for the calendar year.



## Instructions for Input Schedule 2 Producer Post-Service Inputs

### Column 1: Tax Year

These are the calendar years corresponding to each year for which the tax is due, beginning with the year the vessel begins its useful life or, in the case of a used vessel acquired by a producer, the year the vessel begins its remaining useful life for that producer. The beginning of a vessel's useful life or remaining useful life for a producer is determined in accordance with generally accepted accounting principles.

### Column 2: Portion of Year in Service

For a vessel whose useful life begins mid-year (or, in the case of a used vessel acquired by a producer, whose remaining useful life for that producer begins mid-year), the portion of the year in service for the first calendar year of the life of the vessel is the number of days in the year that include and follow the day on which the vessel begins its useful life (or remaining useful life for that producer) during the year divided by the number of days in the year; and the portion of the year in service for the last calendar year of the life of the vessel is one minus that fraction. The portion of the year in service is 100 percent for all other years.

This entry should be consistent with the entries in Input Schedule 4.

### Column 3: Regular Tax Rate

See instructions for Input Schedule 1, Column 5.

### Column 4: Weighted Average Cost of Capital

See instructions for Input Schedule 1, Column 4.

### Column 5: Remaining Years

This is the years of remaining life of the vessel and any capital improvements. (The years of remaining life of a capital improvement are the same as the years of remaining life of the vessel to which the improvement was made.) In the case of a mid-year start-up, the years of service will occur in one more tax year than the life of the vessel.

Years of remaining life are determined as if the vessel has a 24-year useful life beginning the first day of the month that the vessel began its useful life (that month as determined in

accordance with generally accepted accounting principles), unless one of the following exceptions applies:

- (1) except as otherwise provided under paragraph (3), if the vessel's useful life is effectively limited to fewer than 24 years under the provisions of the Oil Pollution Act of 1990 ("OPA 90"), the years of remaining life are determined based on the OPA 90 limitation;
- (2) except as otherwise provided under paragraph (3), if the vessel was acquired by the producer more than 12 years after the date the vessel began its useful life (that date as determined in accordance with generally accepted accounting principles), the years of remaining life are the greater of (A) the years of remaining life based on a 24-year useful life, or (B) the years of remaining life based on the estimated useful life of the vessel as determined in accordance with generally accepted accounting principles as of the date the producer acquired the vessel;
- (3) if the vessel's useful life is effectively limited to fewer than 24 years under the provision of OPA 90 *and* the vessel was acquired by the producer more than 12 years after the date the vessel began its useful life, the years of remaining life are the shorter of the years determined under paragraph (1) or paragraph (2).

At the beginning of useful life the vessel either enters allowable service under 15 AAC 55.196(e)(1), or enters alternative service under 15 AAC 55.196(e)(5).

The life of a vessel is not suspended during periods of lay-up or dry dock, while the vessel is not in allowable service, or for any other reason.

#### Column 6: Cost-of-Capital Allowance under 15 AAC 55.195 (b), (f), or (h)

For a vessel that was subject to 15 AAC 55.195(b) or (f), or for an improvement that was first placed in service on or after January 1, 2002, and that was subject to 15 AAC 55.195(h), the producer shall input the cost-of-capital allowance provided under 15 AAC 55.195(b), (f), or (h), as applicable, for all years through December 31, 2002.

#### Column 7: Improvements

These are the amounts, including in-progress construction, for improvements not expensed under AAC 55.191. All expenditures for capitalized improvements in a calendar year shall be aggregated into one amount and assumed to be placed in service on July 1.

Column 8: Number of Days in the Year

This is the number of days in the year.

Column 9: Previous Cost-of-Capital Allowance

This is the cost-of-capital allowance for each previous year for which the tax was due. Each year new entries are made recognizing (a) corrections to inputs for prior years, if any, that have been made either by the producer or the department, and (b) the cost-of-capital allowance for the previous year.

Column 10: Producer's Choice to Expense First \$1 Million of Improvements

This column reflects the producer's choice whether to expense or capitalize the first \$1 million of improvements in Column 7. A "1" indicates a choice to expense. A "0" indicates a choice to capitalize.

Column 11: Alternative Minimum Tax Status

See instructions for Input Schedule 1, Column 9.

Column 12: Alternative Minimum Tax Rate

See instructions for Input Schedule 1, Column 10.

## Instructions for Input Schedules 3-1 through 3-6 Expected Future Schedules

The entries for this table are schedules, to be submitted for the year for which the tax is calculated, showing the producer's various expected future post-service cash flow events for the vessel, for each future year. These items include depreciation (Input Schedule 3-1), post-service CCF deposits (Input Schedule 3-2), CCF withdrawals (Input Schedule 3-3), other revenues and expenditures with after-tax benefits cash flows (Input Schedule 3-4), other revenues and expenditures with non-taxable cash flows (Input Schedule 3-5), and other revenues and expenditures with taxable cash flows (Input Schedule 3-6).

A new schedule is submitted each year. For any subsequent year for which the tax is calculated, if the producer believes future cash flows will be different than those previously used for these years in previous calculations, the producer shall change these entries for the year being calculated and future years.

The entry for the year being calculated is the amount actually incurred by the producer. If the actual amount is not known at the time the tax is due the producer shall submit an amended schedule when the actual amount is known.

### Column 1: Future Tax Year

This is the future tax calendar year, as defined in Input Schedule 2, Columns 1 and 5. In the case of a mid-year start-up, the years of service will occur in one more tax year than the life of the vessel.

### Subsequent Columns:

Each subsequent column represents subsequent tax years for which the tax is calculated. Each year a new column representing the current tax year's future expectations is submitted for the future tax years in Column 1.

### Input Schedule 3-1: Depreciation

Depreciation commences when the vessel begins its useful life, as determined in accordance with generally accepted accounting principles.

The depreciation amounts are calculated by applying the applicable depreciation method, recovery period, and convention prescribed under 26 U.S.C. §168 to the capitalized investment basis entered in Input Schedule 1, Column 3.

The amount of depreciation for an improvement that is capitalized in CT8:C14 is the applicable federal depreciation schedule applied to the amount of the improvement that is capitalized.

Positioning costs addressed in 15 AAC 55.191(b)(3)(B) do not include depreciation.

A producer who expects to be in alternative minimum tax status for a given year should enter the corresponding depreciation amount.

#### Input Schedule 3-2: Post-Service CCF Deposit

The entries must conform to the producer's capital construction fund agreement with the U.S. Maritime Administration.

If a producer has made contributions into a CCF account that has more than one vessel identified as a program objective, then the amount of the producer's CCF deposit is allocated between vessels. The amount allocated to a vessel is determined as if deposits to the account are made to correspond to the chronological order in which the producer's program objective vessels come into service, unless there is clear and convincing evidence to the contrary. Such evidence might include the producer's capital construction fund agreement with the U.S. Maritime Administration. The amount of the producer's capital construction fund earnings realized on the capital construction fund account and retained in the capital construction fund account is allocated to the vessel proportional to the amount of the deposit allocated to the vessel.

Any CCF deposits whose tax benefits will not be immediately recognized because the producer is in alternative minimum tax status should be entered in the first year the producer expects to be out of alternative minimum tax status.

#### Input Schedule 3-2A: Expected Alternative Minimum Tax Status

The entries indicate the producer's expectations on when they will be in alternative minimum tax status. The number of future years that a producer expects to be in alternative minimum tax status shall be no more than ten years beyond the year for which the tax is calculated. A "1" indicates the producer expects to be in alternative minimum tax status. A "0" indicates they do not.

#### Input Schedule 3-3: CCF Withdrawal

Expected capital construction fund withdrawal is the amount scheduled to be withdrawn under the producer's capital construction fund agreement with the U.S. Maritime Administration. If the agreement applies to multiple vessels, the amount is allocated among the vessels proportional to the total amounts paid to the person building or selling the vessels to the producer, unless there is clear and convincing evidence to the contrary.

Such evidence might include the producer's capital construction fund agreement with the U.S. Maritime Administration.

Any capital construction fund withdrawal that is expected to occur after the last year of remaining life is treated as if it will occur in the last year of remaining life. Any expected capital construction fund withdrawal that has not occurred by the last year of remaining life is considered to occur in the last year of remaining life.

#### Input Schedule 3-4: Other Revenues and Expenditures – Tax Benefits

These are transactions or events whose only cash flow effect is their tax consequences. Included are the producer's anticipated pre-tax amounts of tax benefits associated with the vessel, such as federal tax credits, obligations, deductions, or benefits under 26 U.S.C. (Internal Revenue Code), that are *not* included in Input Schedules 3-1 through 3-3. The amount for any year is the revenues minus the expenditures.

#### Input Schedule 3-5: Other Revenues and Expenditures – Non-Taxable Cash Flows

These include the producer's anticipated amounts of other non-taxable revenues and expenditures associated with the vessel, including cash flows associated with sale / leaseback agreements, or synthetic leases. Examples are the purchase price of a vessel paid to the producer by a lessor who intends to lease the vessel back to the producer, or the re-purchase price paid by the producer at the end of the lease, if the proceeds or the expenditures are not taxable or deductible for tax to the producer. The amount for any year is entered as the revenues minus the expenditures.

#### Input Schedule 3-6: Other Revenues and Expenditures – Taxable Cash Flow Events

This shall include the producer's anticipated amounts of other taxable revenues and expenditures associated with the vessel, including cash flows associated with sale / leaseback agreements, or synthetic leases. Examples are the lease payments associated with sale / leaseback agreements, or synthetic leases. The amount for any year is entered as the revenues minus the expenditures.

## Instructions for Input Schedule 4 Cost-of-Capital Days

The entries in this input schedule should be consistent with the entries in Input Schedule 2, Column 2.

### Column 1: Tax Year

This is the tax year, as defined in Input Schedule 2, Column 1.

### Column 2: Allowable Service

This is the number of days in the year the vessel is in allowable service under 15 AAC 55.196(e)(1).

### Column 3: Lay-Up

This is the number of days in the year the vessel is in lay-up under 15 AAC 55.196(e)(2).

### Column 4: Dry-Dock

This is the number of days in the year the vessel is in dry-dock.

## Summary of Calculation Tables

### Calculation Table 1: Present Value of Pre-Service Capital Construction Fund Deposits

The net present value of deposits to a CCF as of the year the vessel begins its useful is calculated in Calculation Table 1.

### Calculation Table 2: Present Value of Other Pre-Service Revenues and Expenditures

The net present value of other revenues and expenditures as of the year the vessel begins its useful life is calculated in Calculation Table 2.

### Calculation Table 3: Starting Net Unrecovered Capital Investment

The net unrecovered capital investment at the beginning of the vessel's useful life is calculated by adjusting the capitalized basis in Calculation Table 3.

### Calculation Table 4: Expected Present Value - Tax Benefits

The producer's expected future yearly schedule of the present value of tax benefits for the year in which the tax is due is calculated each year in Table 4.

### Calculation Table 5: Expected Present Value – Non-Taxable Cash Flows

The producer's expected future yearly schedule of the present value of non-taxable cash flow events for the year in which the tax is due is calculated each year in Table 5.

### Calculation Table 6: Expected Present Value - Taxable Cash Flows

The producer's expected future yearly schedule of the present value of taxable cash flow events for the year in which the tax is due is calculated each year in Table 6.

### Calculation Table 7: Cost of Capital Allowance Days

The portion of the year the cost-of-capital is allowed is calculated in Calculation Table 7.

### Calculation Table 8: Cost-of-Capital Allowance Calculation



The cost-of-capital allowance each year is calculated in Calculation Table 8.

Calculation Table 9: Adjustments for Changes in Previous Years

The modification to the cost-of-capital allowance arising from changes in input values from previous years is calculated in Calculation Table 9.

# Instructions for Calculation Tables

## General Instructions

Following are the formulae for the calculation tables in this publication. Instructions are directed by column. Unless otherwise specified, each row corresponds to a calendar year.

A formula references entries on other input schedules, other calculation tables, and other columns and rows on the calculation table.

In these formulae, “IS” refers to input schedule, “CT” refers to calculation table, and “C” refers to column. A column or row reference not preceded by an input schedule or calculation table means the reference is from the subject table.

This publication uses + for addition, - for subtraction, \* for multiplication, / for division, and ^ for an exponent.

Each calculation table prepared for any tax year must also include the calculations for previous tax years.

Instructions for Calculation Table 1  
Present Value of Pre-Service Capital Construction Fund Deposits

Column 1: Year Prior to Service

IS1:C1

Column 2: Tax Rate

IS1:C5 or IS1:C10 as appropriate

Column 3: WACC

IS1:C4

Column 4: CCF Deposits and Earnings

IS1:C2

Column 5: CCF Tax Savings

$C2 * C4$

Column 6: CCF Deposit Discount Factor

$((1+C3)^{(1-IS2:C2 \text{ [for first year of service] } * 0.5)})$  [for last year prior to beginning of useful life or remaining useful life for producer] \*  $(1+C3)$  [for each previous year]

Column 7: Yearly Present Value Tax Benefits of CCF Deposits

$C5 * C6$  or zero if the producer is in alternative minimum tax status.

Instructions for Calculation Table 2  
Present Value of Other Pre-Service Revenues and Expenditures

Column 1: Year Prior to Service

IS1:C1

Column 2: Tax Rate

IS1:C5 or IS1:C10 as appropriate

Column 3: WACC

IS1:C4

Column 4: Other Revenues and Expenditures - Taxable

IS1:C6

Column 5: Other Revenues and Expenditures – Non-Taxable

IS1:C7

Column 6: Other Revenues and Expenditures – Tax Benefits

IS1: C8

Column 7: Tax

C2\*C4

Column 8: Discount Factor

CT1:C6

Column 9: Net Cash Flow

$((C4-C7)*C8)+(C5*C8)+(C6*C7*C8)$

Instructions for Calculation Table 3  
Starting Net Unrecovered Investment

Column 1: Tax Rate Year One

IS2:C3

Column 2: WACC Year One

IS2:C4

Column 3: Discount Rate Year 25

$(1/((1+C2)^{(24.5)}))$

Column 4: Salvage Value

$0.04*C3*(IS1:C3)*(1-C1)$

Column 5: Other Revenues and Expenditures

Sum of the column (CT2:C9)

Column 6: Capitalized Basis

IS1:C3

Column 7: PV CCF Deposits

Sum of the column (CT1:C7)

Column 8: Net Unrecovered Capital Investment

$(C6-C4-C5-C7)$

Instructions for Calculation Table 4  
Expected Present Value  
Tax Benefits

Row A: Tax Rate for the Year for which Input Schedule 3 is Prepared

IS2:C3 or IS2:C12 as appropriate

Row B: WACC for the Year for which Input Schedule 3 is Prepared

IS2:C4

Row C: Tax Year

This is the year for which the tax is due and for which Input Schedule 3 is prepared.

Column 1: Future Tax Year

IS3:C1

Columns 2 and Higher: Anticipated Schedule

For the year for which Input Schedule 3 is prepared, an entry in Column 2 or higher is calculated for each of the years of remaining life of the vessel. (Column 2 is used for the first year tax is due; the next year's entries are made in Column 3 while the previous contents of Column 2 are repeated in Column 2; and so on.) The entry is calculated as follows:

- IS3-1 + IS3-2 - IS3-3 + IS 3-4 from the column for the year for which Input Schedule 3 was prepared, for the year of remaining vessel life listed in Column 1,
- Multiplied by Row A

This quantity is multiplied by:

- $(1/((1+\text{Row B})^{(\text{C1}[\text{for the year of remaining vessel life listed in Column 1}]-\text{Row C})+0.5)))$

The entries in the column are summed. This total is placed in Row D for the year for which Input Schedule 3 is prepared.

Instructions for Calculation Table 5  
Expected Present Value  
Non-Taxable Cash Flows

Row A: WACC for the Year Input Schedule 3 is Prepared

IS2:C4

Row B: Tax Year

This is the year for which the tax is due and for which Input Schedule 3 is prepared.

Column 1: Future Tax Year

IS3:C1

Columns 2 and Higher: Anticipated Schedule

For the year for which Input Schedule 3 is prepared, an entry in Column 2 or higher is calculated for each of the years of remaining life of the vessel. (Column 2 is used for the first year tax is due; the next year's entries are made in Column 3 while the previous contents of Column 2 are repeated in Column 2; and so on.)

The entry is calculated as follows:

- IS3-5 from the column for the year for which Input Schedule 3 was prepared, for the year of remaining vessel life listed in Column 1 , multiplied by
- $(1/((1+\text{Row A})^{(\text{C1} [\text{for the year of remaining vessel life listed in Column 1}] - \text{Row B}) + 0.5)))$

The entries in the column are summed. This total is placed in Row C for the year for which Input Schedule 3 is prepared.



Instructions for Calculation Table 6  
Expected Present Value  
Taxable Cash Flows

Row A: Tax Rate for the Year Input Schedule 3 is prepared

IS2:C3 or IS2:C12 as appropriate

Row B: WACC for the Year Input Schedule 3 is Prepared

IS2:C4

Row C: Tax Year

This is the year for which the tax is due and for which Input Schedule 3 is prepared.

Column 1: Future Tax Year

IS3:C1

Columns 2 and Higher: Anticipated Schedule

For the year for which Input Schedule 3 is prepared, an entry in Column 2 or higher is calculated for each of the years of remaining life of the vessel. (Column 2 is used for the first year tax is due; the next year's entries are made in Column 3 while the previous contents of Column 2 are repeated in Column 2; and so on.)

The entry is calculated as follows:

- IS3-6 from the column for the year for which Input Schedule 3 was prepared, for the year of remaining vessel life listed in Column 1,
- Multiplied by (1 - Row A)

This quantity is multiplied by:

- $(1/((1+\text{Row B})^{(\text{C1 [for the year of remaining vessel life listed in Column 1]}-\text{Row C})+0.5})))$

The entries in the column are summed. This total is placed in Row D for the year for which Input Schedule 3 is prepared.

Instruction for Calculation Table 7  
Cost-of-Capital Allowance Days

Column 1: Tax Year

IS2:C1

Column 2: Days in Allowable Service

IS4:C2

Column 3: Days in Lay-Up

IS4:C3

Column 4: Cumulative Days in Allowable Service

Cumulative sum of C2

Column 5: Days in Allowable Lay-Up

Lesser of C3 and the difference between C4 and the prior year's C6

Column 6: Cumulative Days in Allowable Lay-Up

Cumulative sum of C5

Column 7: Days in Dry-Dock

IS4:C4

Column 8: Days in Alternative Service

$((IS2:C8 * IS2:C2) - (C2 + C3 + C7))$

Column 9: Days in Allowable Dry-Dock

$$(C7*((C2+C5)/(C2+C3+C8)))$$

Column 10: Cost-of-Capital Allowance Days

$$C2+C5+C9$$

Column 11: Portion of Year Cost-of-Capital is Allowed

$$C10/(IS2:C8*IS2:C2)$$

## Instructions for Calculation Table 8 Cost-of-Capital Allowance Calculation

### Column 1: Tax Year

IS2:C1

### Column 2: Portion of Year in Service

IS2:C2

### Column 3: Tax Rate

IS2:C3 or IS2:C12 as appropriate

### Column 4: WACC

IS2:C4

### Column 5: Remaining Years

IS2:C5

### Column 6: Annuity Factor

$((1 - (1 / ((1 + C4)^{C5}))) / C4) / ((1 + C4)^{-0.5}) / C2$

### Column 7: Unrecovered Investment Beginning of Year

If the year for which the tax is due is the year the vessel's useful life begins (or, in the case of a used vessel acquired by a producer, the year the vessel's remaining useful life for the producer begins), the entry in Column 7 is the sum of CT3:C8.

Otherwise, the entry is C21 from the previous year minus C19 for the year for which the tax is due.

Column 8: Expected Future Present Value Tax Benefits

Row D of CT4 for the year for which the tax is due.

Column 9: Expected Future Present Value Non-Taxable Cash Flows

Row C of CT5 for the year for which the tax is due

Column 10: Expected Future Present Value Non-Taxable Cash Flows

Row D of CT6 for the year for which the tax is due

Column 11: Net Unrecovered Investment Beginning of Year

C7-C8-C9-C10

Column 12: Levelized Required After-Tax Cash Flow

C11/C6

Column 13: Expensed Improvements

First \$1 million of IS2:C7 \* IS2:C10

Column 14: Capitalized Improvements

IS2:C7 – C13

Column 15: Annual Cost of Capital

$((C12*(1/(1-C3)))+C13)$

For a vessel that was placed in service on or after January 1, 1995, and that was subject to 15 AAC 55.195(b) or (f), or for an improvement that was placed in service on or after January 1, 2002, and that was subject to 15 AAC 55.195(h), the producer shall input the cost-of-capital allowance derived under either 15 AAC 55.195(b), (f), or (h), as applicable, for all years through December 31, 2002 (IS2:C6).

Column 16: Actual Income Tax

$(C15-C13)-(IS31+IS32-IS33+IS34)$  (for the year for which the tax is due for each input schedule))\*C3

Column 17: Middle-of-Year Actual After-Tax Cash Flow

$(C15-C13)-C16+IS35$  (for the year for which the tax is due)+ $((1-C3)*IS36$ (for the year for which the tax is due))

Column 18: Time Value of Money Middle of Year

$((1+C4)^{0.5}-1)*C7$

Column 19: Adjustments for Changes in Previous Years

$(CT9:C8)$

Column 20: Unrecovered Investment Middle of Year with Adjustments for Changes in Previous Years

$C7+C18-C17+C14$

Column 21: Unrecovered Investment End of Year

$C20*((1+C4)^{0.5})$

Column 22: Cost-of-Capital Allowance

$CT7:C11*C15$

The cost-of-capital allowance is the sum of (1) depreciation and a return on capital and (2) expensed improvements, allowable as a reasonable cost of transportation for oil or gas.

For a vessel that was placed in service on or after January 1, 1995, and that was subject to 15 AAC 55.195(b) or (f), or for an improvement that was placed in service on or after January 1, 2002, and that was subject to 15 AAC 55.195(h), the producer shall input the cost-of-capital allowance derived under either 15 AAC

55.195(b), (f), or (h), as applicable, for all years through December 31, 2002 (IS2:C6).

## Instructions for Calculation Table 9 Adjustments for Changes in Previous Years

The beginning-of-year unrecovered investment (CT8:C7) is modified if the cost-of-capital allowance derived for a previous year has been changed due to changes in inputs to a previous year. The modification is calculated as follows:

### Column 1: Tax Year

IS2:C1

### Column 2: Previous Cost-of-Capital Allowance

IS2:C9

### Column 3: Calculated Annual Cost-of-Capital Allowance

CT8:C22

### Column 4: Difference

C2-C3

### Column 5: WACC

IS2:C4

### Column 6: Discount Factor

$((1+C5)^{0.5})$  [for year of adjustment] \*  $(1+C5)$  [for each previous year]

### Column 7: Discounted Difference

C4\*C6



Column 8: Adjustment

Sum of C7 for prior years changed.

## Forms

Following are blank input schedules and calculation tables forms for computing the tax.

The department also has available an Excel spreadsheet that will derive the calculation table values with taxpayer information in the input schedules.

## APPENDIX: Example 1

Following is an example of using the methodology described in this publication to calculate the cost-of-capital allowance. The example contains both a hypothetical set of inputs, and the calculations that would result from those inputs. An Excel spreadsheet with this example is available from the department.

The example is predicated on the following hypothetical set of circumstances:

### I. Pre-Service

1. A vessel with a capitalized basis of \$120 million begins useful life in 2003.
2. There were pre-service CCF deposits for the years 1993 through 2002.
3. The pre-service WACC and tax rates are as shown in Input Schedule 1.
4. There were no other pre-service taxable or non-taxable revenues or expenditures, or tax benefits.

### II. Post-Service

1. The example shows the calculation of the cost-of-capital allowance for the last year of vessel life, 2027, and all years prior.
2. The vessel's useful life began three-quarters of the way through calendar year 2003.
3. There were \$1.5 million in capitalized improvements in 2005.
4. In 2027 there is a correction to the previous year's cost-of-capital calculations.
5. All other post-service inputs are as shown in Input Schedule 2.

### III. Expected Future Schedules

1. Expected depreciation for the vessel and capitalized improvements by year are shown in Input Schedule 3-1.
2. In 2003 and 2004 the producer expects to make post-service CCF deposits of \$4 million in both 2006 and 2007. In 2005 the producer changes the expectation so that the deposits will be made in 2010 and 2011 instead. See Input Schedule 3-2.
3. In 2003 through 2005 the producer expects to make CCF withdrawals of \$10 million per year between 2017 and 2026. In 2006 the producer changes the expectation so that the withdrawals will be made between 2014 and 2023 instead. See Input Schedule 3-3.
4. There are no expected income tax benefits from other revenues and expenditures. See Input Schedule 3-4.
5. The vessel is subject to a synthetic lease, where the producer will sell the vessel to a lessor in 2003 for \$100 million, lease it back for ten years for \$6 million per year, and buy the vessel back in 2012 at the original sales price. Input Schedule 3-5 shows the sale and re-purchase transactions, assuming these are not taxable transactions to the producer.
6. Input Schedule 3-6 shows the above-mentioned lease payments, assuming the lease payments are tax deductible to the producer.

#### IV. Cost-of-Capital Days

1. The cost-of-capital is allowed for portions of the year subject to Input Schedule 4 and Calculation Table 7.

## APPENDIX: Example 2

Following is an example of using the methodology described in this publication to calculate the cost-of-capital allowance for a producer in alternative minimum tax status for the pre-construction period and six years following the beginning of the vessel's useful life. All other circumstances are identical to Example 1. An Excel spreadsheet with this example is available from the department.

Link to [BLANK FORM](#)

Link to [AMT FORM](#)

Link to [REGULAR FORM](#)