DEPRECIATION STUDIES

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Disclaimer

The materials presented reflect the views and opinions of the presenters and do not necessarily reflect those of the Commission or AOPL.

Depreciation Studies
Workshop Agenda

- Depreciation Overview – 18 CFR §352
- Study Requirements
- Rate Review – Why?
- Compliance Considerations
- Business Considerations
- Study Preparation
- Terminology – Understanding a Survivor Curve
- Filing a Depreciation Study
- Approval Process
- Communicating with FERC Staff
- Q&A

Depreciation Overview

Definition:

- The loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance.

- Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities, and, in the case of oil pipeline companies, the exhaustion of natural resources.

Depreciation Overview

- 18 CFR § 352 1-8
  - (a) *Method.* Monthly charges to operating expenses by the straight-line method in conformity with the group plan.
  - (b) *Rates.*
    - (1) Separate composite annual percentage rates will be prescribed for each depreciable account except that the Commission may authorize use of component rates upon specific request. Carriers becoming subject to the USoA and carriers acquiring property for which no rates have been previously prescribed shall file, **within six months**, composite annual percentage rates applicable to the book cost of each class of depreciable property…These rates shall be used by the carrier until the rates prescribed by the Commission become effective.
    - (2)Carriers shall be prepared at any time upon the direction of the Commission to compute and submit revised percentage rate studies. When a carrier believes that any rate prescribed by the Commission is no longer applicable, it shall submit the rate which it believes should be established supported by full particulars for consideration by the Commission.
- 18 CFR § 352 1-19(b)
  - Asset retirement cost to be depreciated over the useful life of the related asset.

Depreciation Overview

Depreciable Property Accounts

102, 152	Right of way
103, 153	Line pipe
104, 154	Line pipe fittings
105, 155	Pipeline construction
106, 156, 176	Buildings
107, 157	Boilers
108, 158	Pumping equipment
109, 159, 179	Machine tools and machinery
110, 160	Other station equipment
111, 161	Oil tanks
112, 162	Delivery facilities
113, 163, 183	Communication systems
114, 164, 184	Office furniture and equipment
115, 165, 185	Vehicles and other work equipment
116, 166, 186	Other property
117, 167, 186.1	Asset retirement costs

Depreciation Overview

- Depreciation represents the ongoing decrease in service potential of assets (i.e., the using up of the productive capacity of the asset) during their useful lives.
- The primary objective of depreciation accounting is to allocate property costs to the periods during which the property is used in pipeline operations (over the useful service life).
- The useful service life, expressed in units of time, is based on the estimates of the physical and economic life of the asset.
- Accounting for depreciation is **not** to achieve a desired financial objective such as an increase or decrease in reported net income, or an adjustment in plant costs to perceived market values.

Depreciation Overview

- Depreciation expense is a significant portion of a pipeline's total cost of service.
  - Determination of the appropriate amount of depreciation is of concern to FERC regulators, State Commissions, pipeline management, investors, consumers, and others affected by the financial performance of a pipeline.
- FERC policy is to standardize depreciation accounting practices[1] to maintain its ability to determine just and reasonable cost-based rates.

[1] Generally using the straight-line method which allocates service value to expense in equal monthly charges over the pipeline's useful service life.

Depreciation Overview

$$DE = \frac{DB - (S - COR) - DR}{ARL} = \frac{\text{Net Plant}}{ARL}$$

Straight-line method, 18 CFR Part 352 1-8 (a)

- DE = Depreciation Expense
- DB = the Depreciation Base or the original cost (Gross Plant)
- S = Salvage (gross) } Where S – COR
- COR = Cost of Removal } = Net Salvage
- DR = Depreciation Reserve (accumulated)
- ARL = Average Remaining Life
- Depreciation Rate = DE / DB

Depreciation Overview

Net Salvage (S – COR)

- S = positive salvage (value received from the retired item or scrap value)
- COR = negative salvage (the cost of retiring the item such as plugging and burying the pipeline, etc.)
- When the Net Salvage is negative (scrap value is less than the cost of removal), the proper term is Net Negative Salvage

Depreciation Overview

Example: Straight-Line Depreciation for Brand New Vehicles

No salvage value:

Acct. No.	Gross Plant	Depr. Res.	Salvage (%)	Net Plant	ARL (yrs)	Annual Expense	Calculated Rate (%)
165	$120,000	--	0	$120,000	5	$24,000	20.00

With 25% salvage:

Acct. No.	Gross Plant	Depr. Res.	Salvage (%)	Net Plant	ARL (yrs)	Annual Expense	Calculated Rate (%)
165	$120,000	--	25	$ 90,000	5	$18,000	15.00

Study Requirements

Study Requirements

Why do a study?

- 18 CFR § 352 1-8 Depreciation Accounting
  - Requests for approval of (new or revised) depreciation rates are to be supported "by full particulars for consideration by the Commission."

- Facilitates FERC's timely review and evaluation of proposed rates.

Study Requirements

When should a study be performed?

- Common carrier pipelines must file proposed composite annual depreciation rates for consideration by the Commission *within six months* for:
  - Entities becoming subject to Commission regulations
  - Newly acquired property that does not have Commission approved rates

Study Requirements

When should a study be performed?

- When a carrier believes ***any*** rate prescribed by the Commission is no longer applicable.

- When directed to do so by the Commission.
  - Carriers shall be prepared at any time…to submit revised…studies (18 CFR § 352, 1-8 (b)(2))

Rate Review – Why?

Rate Review – Why?

A pipeline could, through inappropriate depreciation practices, over-recover the cost of plant, or inappropriately attempt to mitigate stranded costs or shift benefits from asset sales to shareholders or particular customer groups.

Rate Review – Why?

- Compliance Considerations
- Business Considerations
  - Expense
  - Rate Base
  - Rates

Rate Review – Compliance Considerations

Rate Review – Compliance Considerations

- Regulations require carriers to compute and submit request for change in rates
  - "When a carrier believes any rate prescribed by the Commission is no longer applicable." 18 CFR §352 Instruction 1-8 (b)(2)

- Depreciation rates and application are included in the scope of a FERC audit.

Are your current rates approved by the Commission?

Are they still applicable?

Rate Review – Compliance Considerations

- Date of Last Study
- Company Activity
  - Additions
  - Retirements
  - Acquisitions
- Establish and document process for regular review of accrued depreciation and rates:
  - Evaluate rates and determine if still applicable
  - Maintain documentation of reviews
  - Support for decision not to revise rates
  - Support for decision to revise some or all rates

Rate Review – Business Considerations

Rate Review-
Business Considerations

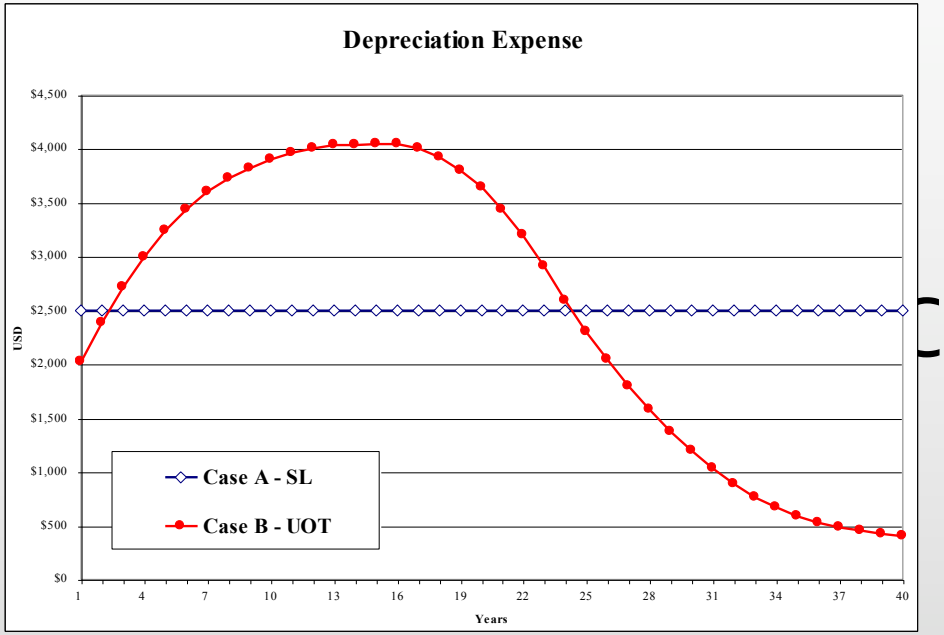
- Operating Expenses
- Rate Base
- Rates

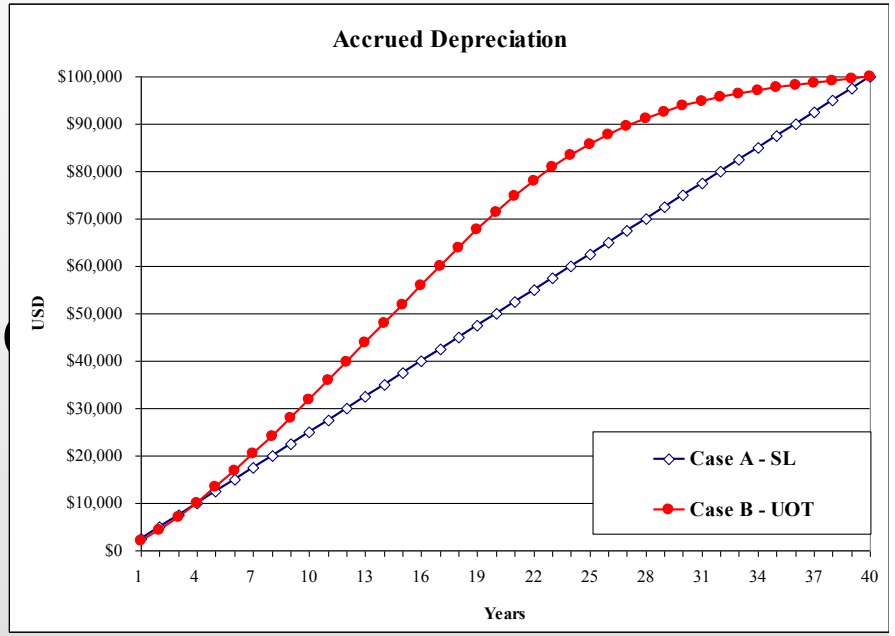
Rate Review – Business Considerations

Operating Expense

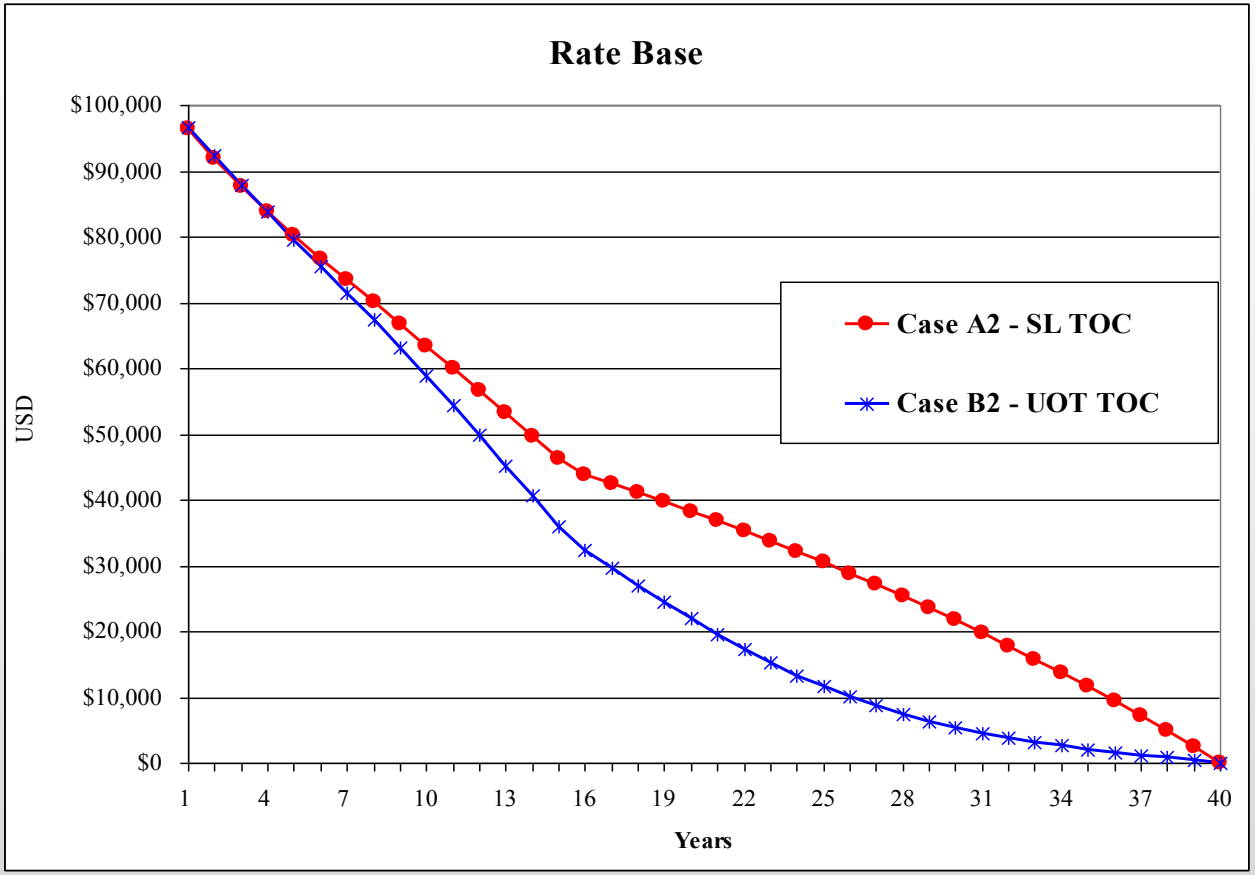
- Methodology makes a difference
  - Straight Line
  - Unit of Throughput (Production)

Rate Review – Business Considerations





Rate Review – Business Considerations



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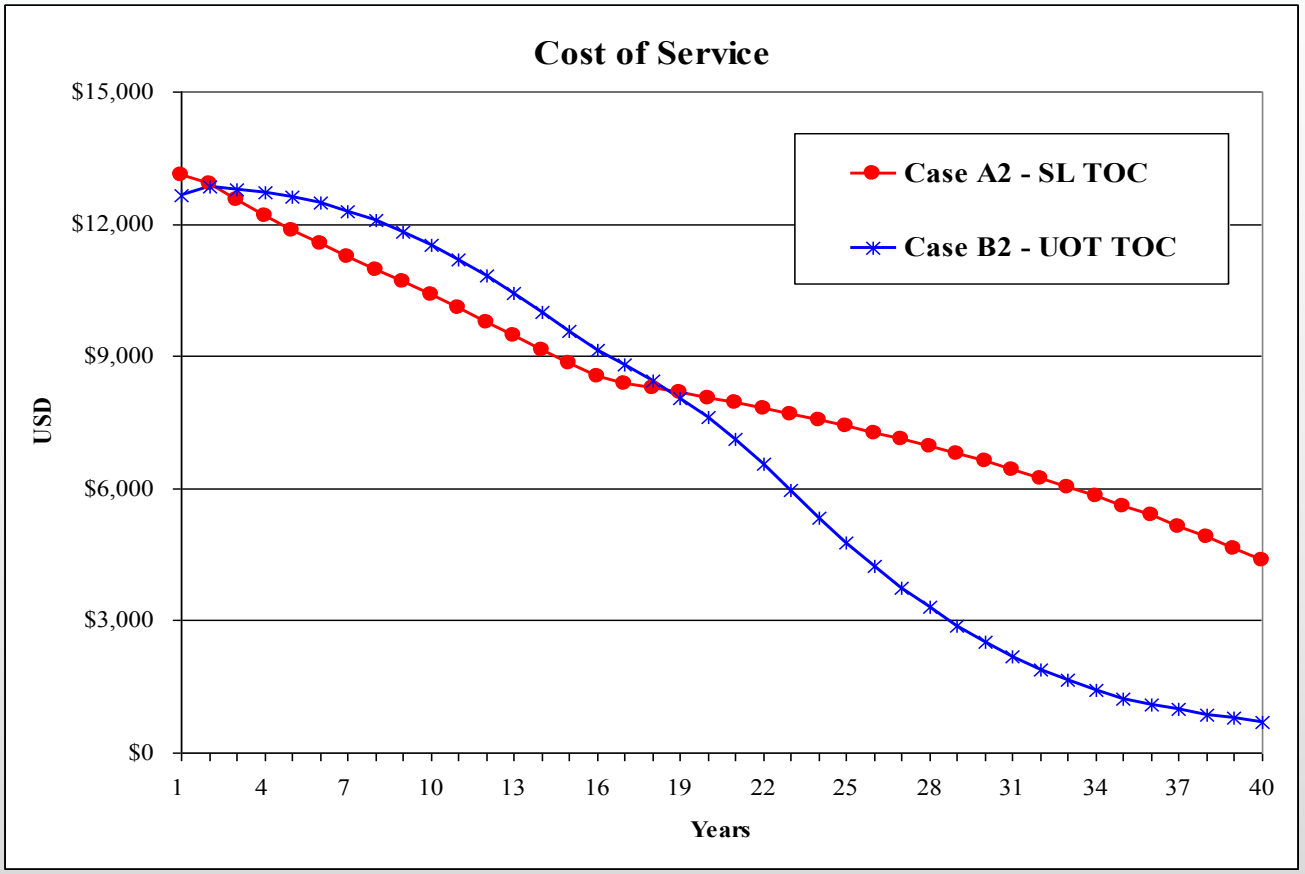


Rate Review – Business Considerations

Cost of Service

- Rate Increase[1]
  - Each item in the pipeline's proposed cost of service is a part of the proposed rate increase.
  - Where the pipeline proposes an overall rate increase, the burden of proving unchanged depreciation rates are just and reasonable is on the pipeline.
  - Williston bore the burden of proving that its depreciation rates were just and reasonable.
  - There is no statutory or regulatory threshold requirement that the Commission demonstrate "changed circumstances" in order to reject a pipeline's proposal to maintain the same depreciation rates.

[1] Williston Basin Interstate Pipeline Company, 107 FERC ¶ 61,164, at PP 25-26 (2004).

Rate Review – Business Considerations

Cost of Service

- Complaint
  - When a party files a complaint against a pipeline's tariff rate pursuant to Section 13(1) of the ICA, that party has the burden of showing that the rates currently on file are unjust and unreasonable.[2]
  - The depreciation rate is part of a pipeline's cost of service and can therefore be considered when determining whether the rates at issue are just and reasonable.[3]
  - In SFPP, complainants did not choose to address the issue of depreciation rates. Staff, as the only participant that challenged SFPP's existing depreciation rates directly, takes on the burden of proving that the existing depreciation rates are unjust and unreasonable.[4]

[2] See SFPP, L.P., 66 FERC ¶ at p. 61,479, n. 10; Order No. 561, Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act of 1992, FERC Stats. & Regs. ¶ 30,985 at 30,955).

[3] Williston Basin Interstate Pipeline Company, 107 FERC ¶ 61,164, at PP 23-25 (2004).

[4] SFPP LP, 127 FERC ¶ 63,023 at ¶ 440 (2009)

Study Preparation

Study Preparation

THE BASICS

- When was the last study performed – Docket No.?
- Activity since last study
- Review and evaluate all cost data and currently approved rates.
  - By property account
  - By geographic location
  - By type of pipeline

Study Preparation

THE BASICS

- Determine Scope of the Study
  - Company-wide
  - Pipeline System
  - Property Account
- Identify resources needed
  - Evaluate methods of establishing rates
  - Prepare proposed depreciation rates
  - Prepare responses to information requirements (18 CFR §347.1)

Study Preparation

Evaluate methods to determine rates

- Service lives developed from engineering studies (use of survivor curves)
  - Company's historical additions and retirements (physical life) are used to determine the average life before complete retirement of all property occurs (economic life).
- Supply & demand considerations
  - Single supply source
- Other

Study Preparation

Information requirements – 18 CFR § 347.1(e) (note if CONFIDENTIAL information is included)

- Items (1) through (4):
  - (1) Summary of the basis relied on for the proposed rates
  - (2) Pipeline company organization
  - (3) Proposed rates by account
  - (4) Explanation of the average remaining life – physical and economic basis
- Item (5) requires (i) through (xi) info to be filed, including:
  - System maps
  - Description of operations
  - Current rates by account
  - Volumes for every receipt and delivery point for each product
  - Daily average and actual average capacities by line section

Terminology
Understanding a Survivor Curve

Terminology
Understanding a Survivor Curve

SURVIVOR CURVES

- Iowa curves - published by Robley Winfrey in 1935. "Statistical Analyses of Industrial Property Retirement." Iowa State College, Engineering Experiment Station, Bulletin 125.

- Iowa curves
  - Predicts the average service life (ASL) (average length of time all units of a group are expected to last when they are new),
  - Describes the retirement frequencies (how much of the group will be retired each year as the group ages) for each account,
  - Estimates the ARL for each property group property based on the area under the survivor curve.

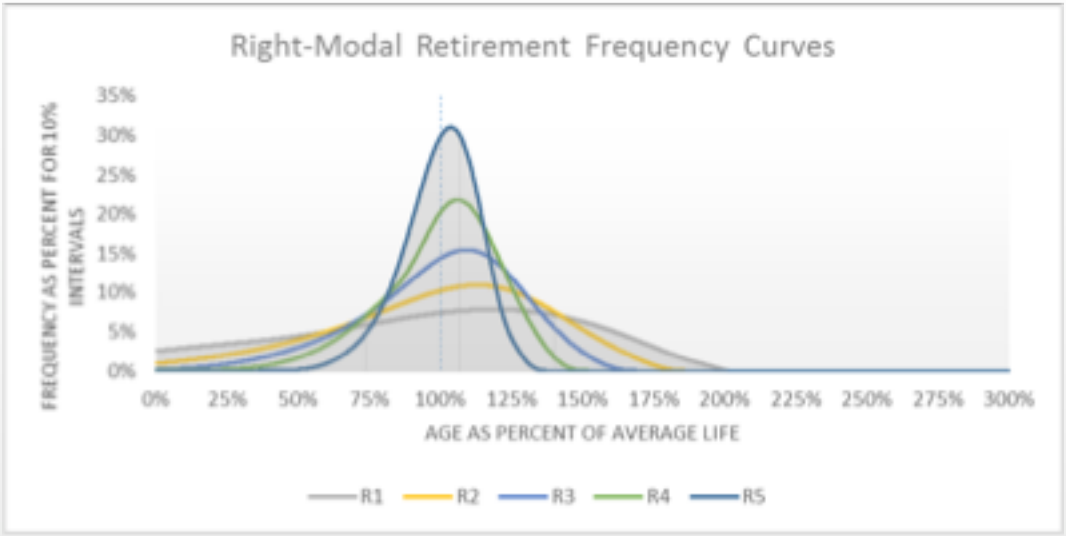
Terminology
Understanding a Survivor Curve

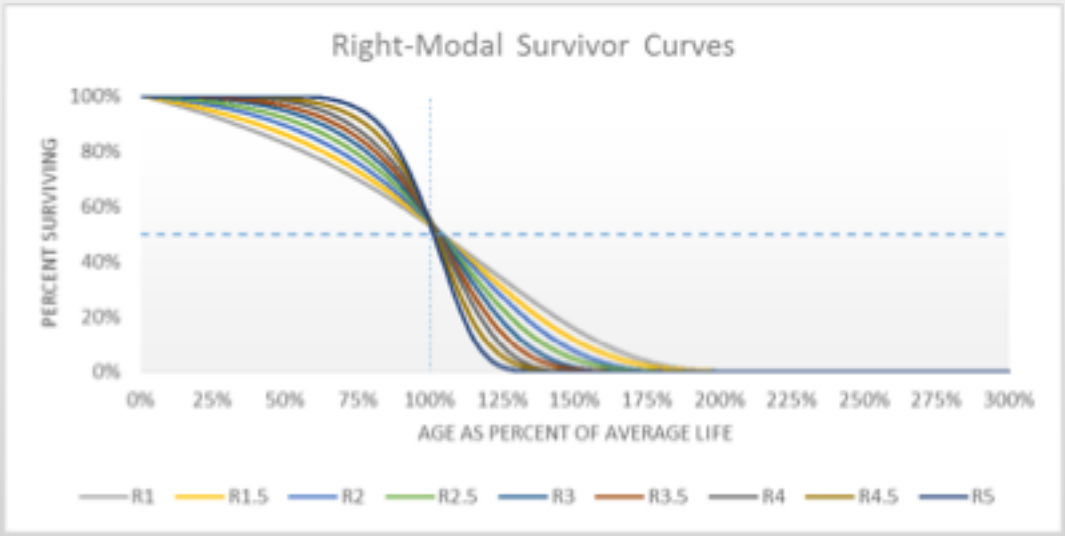
SURVIVOR CURVES (cont.)

- An Iowa Curve is designated by a letter-number combination, for example 65 R2 is a typical industry-wide average for trunk pipelines where:
  - 65 refers to the ASL
  - R2 designation
    - "R" refers to a class of retirement pattern (right skewed retirement distribution).
    - "2" refers to the shape of the retirement pattern.

- The shorter the ASL, the shorter the ARL, and the higher the depreciation rate.

Terminology
Understanding a Survivor Curve





Terminology
Understanding a Survivor Curve

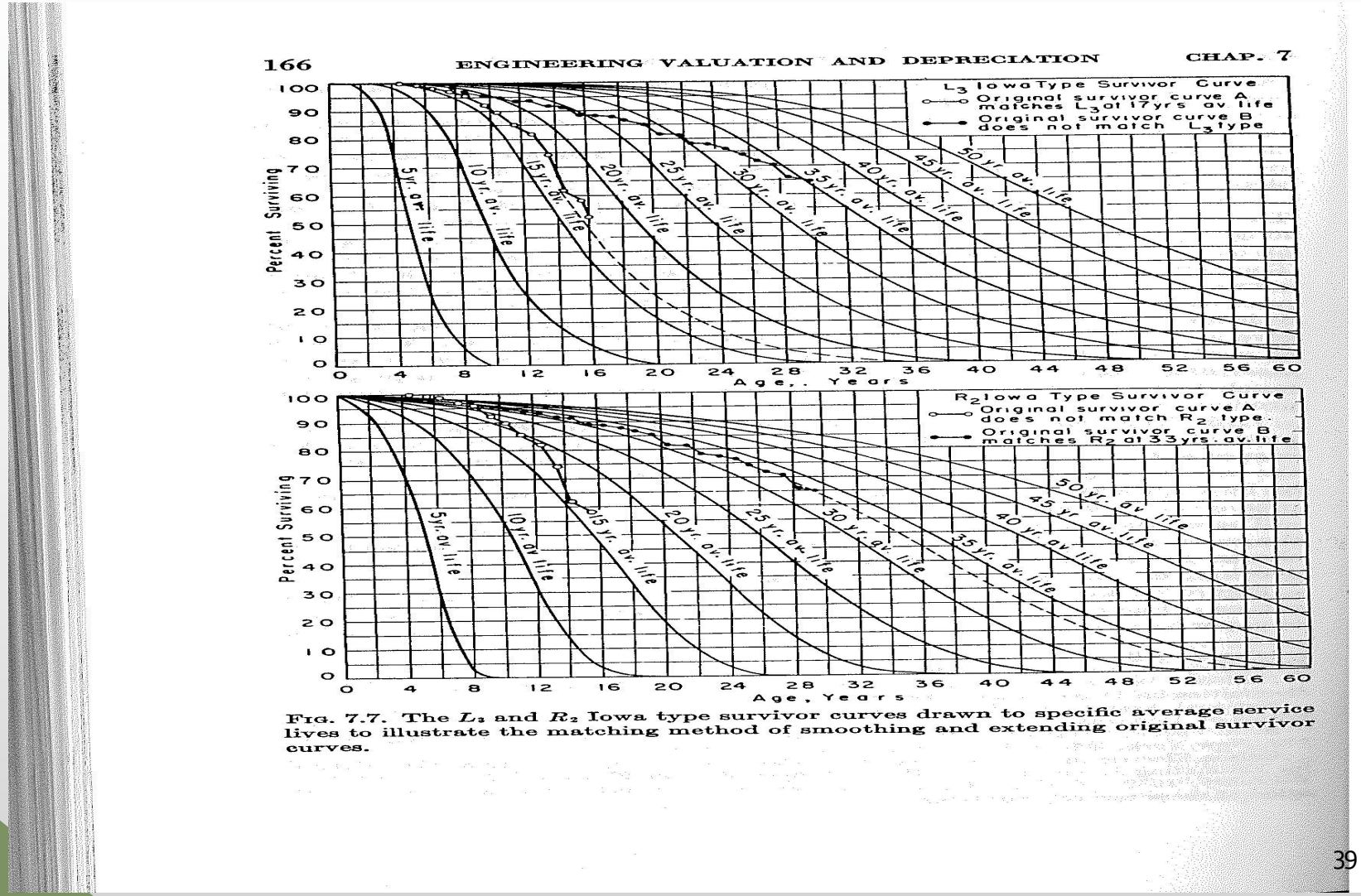


FIG. 7.7. The L_3 and R_2 Iowa type survivor curves drawn to specific average service lives to illustrate the matching method of smoothing and extending original survivor curves.

Terminology
Understanding a Survivor Curve

Industry-wide averages (typical curves and service lives)

for gathering and trunk oil/product pipelines:

Acct. No.	Gathering	Acct. No.	Trunk
102,103,105	R2-30	152,153,155	R2-65
104,110	R1-25	154	R2-50
106	S2-25	156	S2-50
108,109,112,114	S1-20	158, 162	S1-30
111	S1-30	159	S2-20
113	S1-10	160	R1-35
115	S1-5	161	S2-40
116	S-15	163,164	S1-20
		165	S1-5
		166	S1-15

Filing a Depreciation Study

Filing a Depreciation Study

18 CFR §347

- Requirements Provided in Commission's CFR
  - Section 347.1 (a) through (d) – how and what to file
  - Section 347.1 (e) – Information needed (justification, rates, ARL, maps, Form No. 73)

Filing a Depreciation Study

- § 347.1(a) File with the Secretary of the Commission, clearly marked as containing "Oil Pipeline Depreciation Rates."
- § 347.1(b) Must file electronically – eTariff filing (not eFiling) using Type of Filing Code 1160 (Depreciation Study).
- § 347.1(c) Transmittal letters must describe the filing, certify sent to each shipper and subscriber, & clearly designate if certain information is confidential.
- § 347.1(d) Rates are effective until approved or modified by the Commission. Must sufficiently justify proposed rates.

Filing a Depreciation Study

Keys to a Successful Study

- Sound basis for proposed rates
  - Physical
  - Economic
- Complete narrative on operational details
- Include an effective date
- Provide the information as required by all sections in Part 347.1(e)
- Allow time for processing – not considered statutory work

Filing a Depreciation Study

- Information to be included:
  - "Initial Depreciation Rates" or "Depreciation Rate Change" in transmittal letter cover page
  - Effective date for the new rates (can be retroactive)
  - Include Docket No. DOXX - on the transmittal letter (Where XX = Current Year)

FERC Staff Process

Filing Process

- Applicants may choose to email a draft depreciation study with staff for informal preview before filing (Part 341.2 – Informal Submissions)

- One to two month turnaround after date of filing

INTERACTING WITH FERC

- Face-to-face pre-filing meetings with oil program staff

FERC Contact
Office of Energy Market Regulation

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