ARCO Pipe Line Company
Opinion No. 351
52 FERC ¶ 61,055 (1990)

On March 31, 1986, ARCO Pipe Line Company (ARCO) filed with the Federal Energy Regulatory Commission (Commission) a general rate increase.

An initial decision was issued by the Presiding Administrative Law Judge (ALJ) on June 17, 1988. (43 FERC ¶ 63,033). The initial decision covered seventeen issues including a variety of generic issues of interpretation of Opinion Nos. 154-B (31 FERC ¶ 61,377 (1985)) and 154-C (33 FERC ¶ 61,327 (1985)).

Initially, the Commission determined that ARCO had not justified its proposed cumulative capital structure, therefore, ARCO's parent capital structure would be used to derive ARCO's starting rate base. (52 FERC ¶ 61,055, 61,232-34).

The application of the allowance for funds used during construction (AFUDC) was a major issue. The Commission agreed with the ALJ that ARCO was not entitled to include AFUDC in its starting rate base. (Id. at 61,234-35). The starting rate base was not meant to be used as a vehicle to reconstruct original cost or reproduction costs ab initio. The Commission also agreed with the ALJ that ARCO was not entitled to capitalize past overhead expense as part of the original cost portion of the starting rate base. (Id. at 61,236).

Another key issue was whether ARCO could amortize any portion of its write-up in the starting rate base. The ALJ found that the Commission in Opinion No. 154-B did not intend to allow amortization of the write-up because oil pipeline investors did not rely on a write-up factor under ICC regulation, nor was such amortization necessary to put older and newer pipelines on an equal footing. (Id. at 61,236). The Commission agreed with the ALJ's treatment on this issue. (Id. at 61,237).

Concerning deferred tax issues, the Commission found that (1) ARCO could not earn a return from ratepayers on cost-free deferred tax balances (Id. at 61,238), (2) the rate base should be trended after, not before, deferred taxes are credited against the rate base (Id. at 61,238-39), and (3) ARCO may include its crude oil inventory in its working capital allowance at a value not to exceed cost. (Id. at 61,240).

As to return allowance issues, the Commission confirmed that the illustrative language in Opinion No. 154-B describing TOC and the relationship of rate base and capital structure (See 31 FERC ¶ 61,377 at 61,834) specifically described how return was to be derived for existing, but not new, pipelines. Also, the Commission noted that it adhered to the weighted cost of capital, rather than a "two rate base", approach for oil pipelines. (52 FERC at 61,242).

<u>ARCO Pipe Line Company</u>,
Opinion No. 351,
Opinion and Order Affirming In
Part and Modifying In Part
Initial Decision
52 FERC ¶ 61,055 (1990)

[¶ 61,055]

ARCO Pipe Line Company, Docket Nos. IS86-3-000, IS87-1-000, and IS87-13-000

Opinion No. 351; Opinion and Order Affirming in Part and Modifying in Part Initial Decision

(Issued July 18, 1990)

Before Commissioners: Martin L. Allday, Chairman; Charles A. Trabandt, Elizabeth Anne Moler and Jerry J. Langdon.

[Note: The Initial Decision of the presiding administrative law judge issued June 17, 1988, appears at 43 FERC ¶ 63,033.]

Appearances

Steven H. Brose, Steven Reed, Elizabeth Jordon Gianturco, and *John T. Updegraff* on behalf of ARCO Pipe Line Company

John D. Gossel, William J. Froehlich, Thomas J. Burgess, Robert L. Woods, and *Marvin T. Griff* on behalf of the Staff of the Federal Energy Regulatory Commission

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[5] Order No. 436, *FERC Statutes and Regulations, Regulations Preambles 1982-1985* ¶ 30,665, at p. 31,519 (1985).

[6] Id. at p. 31,520.

[7] 43 FERC ¶ 61,196, *reh'g denied*, 44 FERC ¶ 61,105, at p. 61,298 (1988).

[8] Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, Order No. 500-H [*FERC Statutes and Regulations* ¶ 30,867] (December 13, 1989), *modified*, Order No. 500-I [*FERC Statutes and Regulations* ¶ 30,880] (Feb. 12, 1990).

Daniel B. Pinkert, Charles E. Graham, William J. Collingsworth, James R. Kinzer, Howard D. McCloud, William E. Still, Patrick H. Corcoran, Lawrence A. Miller, and *Kevin Hawley* on behalf of the Association of Oil Pipe Lines

[Opinion No. 351 Text]

On June 17, 1988, the administrative law judge (ALJ) issued his Initial Decision in this proceeding.[1] He concluded that ARCO Pipe Line Company's (ARCO) rates for the shipment of crude oil through its pipeline system are not just and reasonable.[2] ARCO, the Commission staff, and the Association of Oil Pipe Lines (AOPL) filed briefs on and opposing exceptions to the Initial Decision.[3] As discussed below, the Commission affirms the Initial Decision in part and modifies the Initial Decision in part. The issues concerning "intrasystem transfer fee revenues" and "buy-out of throughput and deficiency agreement" were tried under protective order and are discussed and decided in the Appendix, which will not be published with this Opinion and Order.[4] The other issues are typical cost-of-service issues such as rate of return on equity or involve interpreting Commission Opinion Nos. 154-B [5] and 154-C,[6] which set forth the Commission's cost-based principles for testing the (reasonableness of oil pipeline rates.[7]

I. Rate Base Issues

A. *Rate Base in General*

Prior to the issuance of Opinion Nos. 154-B and 154-C, oil pipelines were entitled to earn a return on capital determined by multiplying the allowed rate of return times a valuation rate base.[8] The valuation formula "weights original cost and reproduction cost according to their relative sizes and then averages them. The resulting weighted mean is then reduced for depreciation." [9] Opinion No. 154-B adopted net depreciated trended original cost (TOC) as the appropriate form of rate base to replace the valuation rate base.[10] In addition, Opinion No. 154-B adopted a starting or transition

[1] *ARCO Pipe Line Co.*, 43 FERC ¶ 63,033 (1988).

[2] ARCO's rates for transporting refined products are not at issue. *See ARCO Pipe Line Co.*, 41 FERC ¶ 63,015 (1987), *aff'd*, 41 FERC ¶ 61,397 (1987).

[3] The AOPL's motion for leave to file briefs on exceptions and opposing exceptions and to participate as amicus is granted.

[4] In the Appendix, the Commission (1) affirms and adopts the ALJ's decision that ARCO's service of documenting the transfer of the right to receive crude oil from one party to another is not jurisdictional under the Interstate Commerce Act and that ARCO (need not take revenues derived from that service into account in establishing its juriedictional cost of service and rates, and (2) holds that ARCO's ratepayers should receive the after-tax benefit of a payment made to ARCO to buyout a throughput and deficiency agreement.

[5] *Williams Pipe Line Co.*, 31 FERC ¶ 61,377 (1985).

[6] *Williams Pipe Line Co.*, 33 FERC ¶ 61,327 (1985).

[7] In *Buckeye Pipe Line Co.*, 44 FERC ¶ 61,066, *order on reh'g*, 45 FERC ¶ 61,046 (1988), the Commission concluded that in markets that are subject to effective competition an oil pipeline's rates might be evaluated under a standard less strict than that of Opinion No. 154-B. The Commission has not been asked to remand (this proceeding for a *Buckeye* determination and so will resolve (this matter under the standards of Opinion No. 154-B.

[8] The valuation formula appears in *Williams Pipe Line Co.*, 21 FERC ¶ 61,260, at p. 61,696 n.295 and *Farmers Union Central Exchange, Inc. v. FERC*, 734 F.2d 1486 at 1495 n.28 (D.C. Cir. 1984), *cert. denied sub nom., Williams Pipe Line Co. v. Farmers Union Central Exchange, Inc.*, 469 U.S. 1034.

[9] *Farmers Union*, 734 F.2d at 1495 n.28.

[10] The Commission has described TOC as follows:

> First, TOC, just like net depreciated original cost, requires the determination of a nominal (inflation-included) rate of return on equity that reflects the pipeline's risks and its corresponding cost of capital. Next, the inflation component of that rate of return is extracted. This leaves what economists call a "real" rate of return. The real rate of return times the equity share of the rate base yields the yearly allowed equity return in dollars. The inflation factor times the equity rate base yields the equity rate base write-up. That write-up, like depreciation, is written-off or amortized (over the life of the property.

Williams Pipe Line Co., 31 FERC ¶ 61,377, at p. 61,834 (footnote omitted). See *Id.* for an illustration with numbers.

rate base in dollars for existing plant in order to "bridge the transition from valuation to TOC." [11] The starting rate base consists of the sum of a pipeline's debt ratio times book net depreciated original cost 'and the equity ratio times the reproduction cost portion of the valuation rate base depreciated by the same percentage as the book original cost rate base has been depreciated.[12] Opinion No. 154-B stated that the formula was "fair in view of pipeline investor reliance on a rate base which has been adjusted for inflation," [13] and that it would "more closely approximate the TOC rate base that would have existed had the [Interstate Commerce Commission] not written-up debt [in the valuation formula and] will ensure that the equity holder does not benefit from the write-up of debt financed assets." [14] Opinion No. 154-B also noted that "for the purpose of determining the starting rate base, [the] capital structure [to determine the debt and equity ratios] shall be the actual capital structure as of the date of this opinion." [15]

B. Capital Structure to Use to Derive Starting Rate Base

The ALJ rejected ARCO's position that its starting rate base should be computed using a cumulative average of its parent's (Atlantic Richfield Company) debt and equity ratios from 1970-1983 (27.7% debt and 72.3% equity) rather than its parent's debt and equity ratios as of June 30, 1985 (35.99% debt and 64.01% equity). The ALJ first stated that he was bound by Opinion No. 154-B's requirement that the capital structure as of June 30, 1985, be used, and that, in any event, ARCO had not justified using its proposed cumulative average capital structure.

ARCO argues that Opinion No. 154-B did not set forth a binding rule and that its proposal is warranted in light of the "unrebutted record evidence that [its] mid-1985 capital structure was reflective of unusual forces with atypical effects." [16] This was due to its parent's issuing new debt to enable it to repurchase its own common stock owing to anxiety about hostile takeover bids. ARCO further urges that the fourteen-year period is reasonable because it "encompasses the period during which most of the gross carrier property in the [starting rate base] was placed in service." [17] Last, ARCO states that its proposal does not present a problem of post-hoc manipulation of the capital structure which it believes was the Commission's concern in adopting the June 30, 1985 date.

The Commission adopted the date certain of June 30, 1985, for determining the capital structure to use in deriving the starting rate base to prevent manipulation of the capital structure, to promote administrative convenience, and to reflect the value of the pipeline's assets at the transition date. Past capital structures are not relevant to determining that value as is the case in any rate proceeding where assets are presumed to reflect the then current capital structure. Of course, the Commission is concerned about whether a capital structure is abnormal. But the correct yardstick is not whether the 'pipeline's capital structure is in tune with historical capital structures. Rather, it is whether the capital structure is representative of the pipeline's risks. ARCO has not claimed that a 64.01 per cent equity capital structure is not representative of its

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[11] *Id.* at p. 61,833.

[12] The formula is: $SRB = O(1-e) + R(e)$

Where:

SRB = starting rate base

O = book net depreciated original cost

R = net depreciated reproduction cost

e = ratio of equity to total capitalization

[13] 31 FERC ¶ 61,377, at p. 61,836.

[14] *Id.*

[15] *Id.* at p. 61,839 n.43.

[16] Brief on Exceptions at 91.

[17] *Id.* at 89.

risks.[18] Moreover, the Commission agrees with and adopts the ALJ's conclusion that ARCO has not justified using its proposed cumulative capital structure. The Commission agrees with the ALJ that ARCO's parent's capital structure as of June 30, 1985, should be used to derive ARCO's starting rate base.[19]

C. *Proposed Additions to the Original Cost Component of the Starting Rate Base*

1. AFUDC in Starting Rate Base

AFUDC or allowance for funds used during construction represents the cost of capital incurred by a pipeline with respect to assets prior to their inclusion in rate base. AFUDC consists of two components. The first is the cost of equity capital. The second is the cost of debt capital known as interest during construction. The ICC permitted oil pipelines to capitalize interest during construction and add the capitalized amount to rate base. The ICC did not permit the capitalization into rate base of equity used during construction. This Commission permits the capitalization of AFUDC (i.e. both interest and equity) into rate base.

The ALJ rejected ARCO's contention that it should be allowed to adjust its starting rate base to include the cost of past equity during construction. He first concluded that the Commission, in Opinion No. 154-B, did not intend for AFUDC to be included in starting rate base. In that connection, he stated that ARCO's reliance on note 38 to that opinion was in error. That note provided:

> Of course, all new plant will be recorded at cost. Subject to reexamination in a particular case, oil pipelines may add to their rate bases as an allowance for funds used during construction an amount computed using their nominal overall cost of capital.[20]

He concluded that the quoted language applied to new plant only. In addition, he rejected ARCO's contention that inclusion of AFUDC in starting rate base would be beneficial from a policy standpoint.

ARCO and the AOPL except. ARCO argues that Opinion No. 154-B did permit inclusion of AFUDC in the starting rate base and that other adjustments to book balances were made in this proceeding. ARCO adds that the ALJ's misperception of this issue is shown by his statement that depreciated original cost is to be taken from the valuation formula when it actually came from ARCO's books of account under the Uniform System of Accounts (USOA) for Oil Pipelines. It further interprets the quoted footnote to Opinion No. 154-B as applicable to starting rate bases as well as to new plant. Next, ARCO states that it only seeks to recover "the *undepreciated* balance of AFUDC that would have remained even if [it] had been collecting a proportionate amount for AFUDC in each past period." [21] With respect to policy, it states that because it is being denied recovery of items permitted by valuation, it is unfair to deny it AFUDC which is allowed under original cost and that permitting AFUDC is

[18] Indeed, ARCO suggests a 64.01 percent equity capital structure be adopted for return purposes. See *infra* "Capital Structure for Return Purposes."

[19] In footnote 64 on page 88 of its Brief on Exceptions, ARCO states that if the Commission concludes that "a single snapshot date" is preferable to an historical average, the Commission should adopt ARCO's parent's capital structure as of December 31, 1983 (24.6 percent debt) to determine ARCO's starting rate base, which is based on 1983 data. *Williams Pipe Line Co.*, 31 FERC ¶ 61,377, at p. 61,839 n.40 (1985). The Commission adheres to June 30, 1985, as the appropriate date to use to derive the starting rate base because that date is the date of transition to the trended original cost methodology. The 1983 valuation data was (used because 1983 was the last year for which valuations were performed.

[20] 31 FERC ¶ 61,377, at p. 61,839 n.38. The pipelines may depreciate the AFUDC capitalized into their rate bases.

[21] Brief on Exceptions at 76.

"consistent with Opinion No. 154-B's theme of competitive equality for older and newer pipelines" [22] and of "promoting competition among *pipelines*." [23] The AOPL asserts that equity-related AFUDC should be included in the starting rate base "to put a pipeline ... in the position it would have been in at the time of transition if the TOC methodology adopted in Opinion No. 154-B had been in place from the outset," [24] and that "inclusion is *required* by the policy considerations underlying Opinion No. 8154-B." [25]

The Commission agrees with the ALJ that ARCO is not entitled to include AFUDC in its starting rate base. The starting rate base is an artificial construction devised to enable the oil pipeline industry to have a smooth transition from the valuation rate base to the trended original cost rate base. The starting rate base was not meant to be used as a vehicle to reconstruct original cost or reproduction cost *ab initio*. The ALJ was correct that footnote 38 to Opinion No. 154-B applied only to new plant.[26] It is true that the starting rate base formula excludes the ICC's 6 percent add on to valuation for going concern value. But that was because the Commission found going concern value to be unjustified.[27] That does not justify recomputing original cost to include items excluded by the ICC even on a depreciated balance basis. Of course, adjustments of some kind may be required to derive original cost. Here, for example, costs had to be allocated between ARCO's crude oil and refined products lines and deferred taxes had to be determined. But those matters of allocation and determination are different from new additions to rate base.[28] The Commission's statement that a starting rate base was used to put the pipelines in a position approximate to that which would have existed had TOC been in place *ab initio* refers to trending only equity and not debt.[29] That statement does not justify a retroactive recalculation of the rate base.[30]

With respect to policy, the Commission in adopting TOC was concerned about the ability of newer pipelines to compete with older pipelines. TOC alleviates this problem because it eliminates the front-end load associated with net depreciated original cost by reducing equity return in the pipeline's early years. However, the Commission's policy of promoting competition among pipelines does not include raising the rates of the older pipelines merely to permit newer pipelines to compete. TOC, to the contrary, changes the timing pattern of rate recovery for newer pipelines to help them to compete.

2. Capitalized Overhead

The ICC did not permit the capitalization into rate base of overhead expenses related to construction work in progress. The Commission allows such an addition to rate base. The ALJ rejected ARCO's argument that it should be allowed to adjust the depreciated original cost component of the starting rate base to include past overhead. He stated that: "There is no room for retroactive 'massaging' of the [depreciated

[22] *Id.* at 77.

[23] *Id.* at 79.

[24] Brief on Exceptions at 36.

[25] *Id.* at 38.

[26] The Commission's intent in footnote 38 was to put oil pipelines on the same basis as gas pipelines and electric companies where AFUDC is recognized as a component of construction cost.

[27] 31 FERC ¶ 61,377, at p. 61,836.

[28] ARCO is correct that net depreciated original cost is to be taken from the pipeline's books and not from the valuation formula as assumed by the ALJ. *Williams Pipe Line Co.*, 31 FERC ¶ (61,377, at p. 61,839 n.40 (1985). But ARCO's point is of no moment because the Commission's analysis assumes that point.

[29] 31 FERC ¶ 61,377, at p. 61,836.

[30] The Commission concludes that whether ARCO recovered sufficient equity returns under valuation is irrelevant to the resolution of the issue.

original cost] figure based on clever rationalizations about the injustice of excluding from [starting rate base] items of expense that the ICC had required jurisdictional pipelines to treat as current expenses." [31] He further stated that the burden was on ARCO to show that it did not have the opportunity to recover overhead expenses in its rates and, that even if it did not so recover those expenses, a retroactive adjustment would not be lawful. ARCO excepts. It asserts that "it is essentially irrelevant whether or [not] to what extent capitalized overhead was recovered in the past" [32] and that the rule against recouping past losses is not pertinent. This is because:

> The object of the exercise with respect to the original cost portion of [ARCO's starting rate base] is to calculate where [ARCO] would stand today if it had been previously operating under a traditional original cost methodology, and to use this calculation as the basis for evaluating future rates. Capitalized overhead is an integral part of original cost methodology, and its omission from the [depreciated original cost] portion of the transition rate base would distort the result in a manner inconsistent with the spirit of Opinion 154-B.[33]

The Commission agrees with the ALJ that ARCO is not entitled to capitalize past overhead expense into the original cost portion of the starting rate base. As discussed *supra*, the starting rate base is not to be used as an excuse for reconstructing original cost *ab initio*. As the ALJ concluded, "there is no room for retroactive 'massaging' " of the numbers.[34]

D. *Amortization of the Write-up in Starting Rate Base*

As stated earlier, the Commission adopted a starting rate base for oil pipelines which consists of the sum of a pipeline's debt ratio times book net depreciated original cost and the equity ratio times the reproduction cost portion of the valuation rate base depreciated by the same percentage as the book original cost rate base has been depreciated. The resultant rate base is higher in dollars than a pipeline's net depreciated original cost of its assets. The difference between the starting rate base and net depreciated original cost is known as the write-up in starting rate base. The ALJ concluded that ARCO "may not cost or amortize any portion of the starting rate base write-up to its service." [35] He found that the Commission did not intend to allow such an amortization in Opinion No. 154-B, that oil pipeline investors did not rely on this possibility "because oil pipelines did not amortize the inflation adjustment element in the rate base to cost of service when they were under the aegis of the ICC," [36] and that amortization was not necessary to put older and newer pipelines on an equal footing.

ARCO and the AOPL except. ARCO states that Opinion No. 154-B intended that the pipeline recover in its cost of service amortized write-up amounts in the starting rate base, that it is entitled to a recovery of its total rate base, and that cost-of-service recovery is necessary to put older and newer pipelines on an equal competitive footing to encourage the construction of new pipelines. The AOPL argues that it is impossible to have a transition to a cost-based methodology if the pipeline may not have both a return on and a return of the excess over original cost in the starting rate base. The AOPL adds that the Commission, in Opinion No. 154-B, found that rate base write-ups represent deferred or capitalized earnings and that amortization is necessary to "replicate the results that would have obtained if the 'trended original cost' methodol-

[31] 43 FERC ¶ 63,033, at p. 65,397.

[32] Brief on Exceptions at 144.

[33] *Id.*

[34] *See* n.31, *supra*.

[35] 43 FERC ¶ 63,033, at p. 65,372.

[36] *Id.*

ogy established in Opinion No. 154-B had been in place from the outset."[37] At the very least, the AOPL contends, consistency requires that if the write-up is not amortized as an expense, it should not be depreciated for rate base/rate of return purposes. The AOPL also addresses 'the ALJ's conclusion that the write-up in the valuation rate base was not amortized so that there was no investor reliance. The AOPL first states that investor expectation was only one of the purposes of the transition provisions of Opinion No. 154-B.[38] Second, the AOPL points to Commission rejection of other elements of the valuation rate base such as the 6-percent allowance for going concern value as justifying rejection of past nonamortization, which makes sense under a cost-based regime unlike a going concern value. The AOPL further contends that the ALJ's conclusion will cause rate disparities between competing older and newer pipelines in contravention of a functional objective of the transition provisions of Opinion No. 154-B. The AOPL states that these rate disparities will be caused by the different time patterns of rates stemming from exclusion and inclusion of amortization. Hence, the AOPL claims that newer pipelines will not be able to compete with older pipelines because of the latter's lower rates caused by exclusion of amortization. Last, the AOPL argues that denial of amortization amounts to an unconstitutional confiscation of deferred earnings.

The Commission agrees with the ALJ that ARCO is not entitled to amortize the write-up in the starting rate base as a cost-of-service expense. As the ALJ found, the ICC did not permit the amortization of the write-up in the starting rate base so there can be no claim of investor reliance. In addition, there has been no showing that the write-up in the stating rate base represents deferred earnings. The fact that under the valuation method there was no amortization of the difference between valuation and net depreciated original cost is evidence that the difference did not represent deferred earnings. The valuation methodology was a fair value methodology and not the equivalent of TOC where the write-up does represent deferred earnings. The shift from a valuation to a TOC methodology does not transform the write-up into deferred earnings or any other expense. Accordingly, the denial of amortization does not constitute confiscation. The claim that newer pipelines will not be able to compete because their allowed rate will be higher than those of older pipelines, even if true, is no justification for permitting the older pipelines to collect a phantom cost which would be a windfall to these older pipelines. Last, the write-up should not be permanent even though it is not amortized as an expense. This is because the ICC depreciated valuation for return purposes despite computing depreciation solely on original cost.

E. *Deferred Tax Issues*

1. Rate Base Crediting

ARCO calculates its income tax allowance or expense using the normalization method. Under that method, ARCO, for example, accelerates its depreciation expense for tax purposes, but computes its tax expense for rate purposes as if it were paying the higher taxes required by its book depreciation method (such as straight-line). The difference between the book or rate tax expense amount and the actual tax amount is placed in a deferred tax reserve account.[39] Later, when the depreciation expense amounts reverse so that taxable income is higher than book (rate) income because depreciation as a tax expense is less than depreciation as a book (rate) expense, ARCO will use its deferred tax balances to pay the higher taxes that it does not collect in its

[37] Amicus Brief on Exceptions at 26.

[38] *Id.* at 28, 29.

[39] ARCO's "actual" tax amount is its stand-alone tax computation using its tax expense deductions.

current cost of service. Opinion No. 154-B noted that the court in *Farmers Union II* affirmed Opinion No. 154's conclusion that all pipelines must credit all deferred tax balances against their rate bases.[40]

The ALJ rejected ARCO's position that the time value of the deferred tax balances should be a revenue credit to its cost of service at the risk-free rate of interest as opposed to the rate base credit approach. In brief, the ALJ stated that he was bound by Opinion Nos. 154 and 154-B to require the full deduction of the deferred tax balances from ARCO's rate base and that, in any event, ARCO's substantive contentions (*see infra*) were without merit. ARCO and the AOPL except to the ALJ's decision on this issue.

ARCO and the AOPL argue that rate base crediting is unfair for oil pipelines because they should be able to earn a return for the risk of holding the deferred tax balances until the deferred tax amounts come due. This can be achieved by not crediting any risk premium (return above risk-free return) to ratepayers. This way the pipeline will be rewarded for the risk of investing the deferred tax funds and for the associated risk that the funds will be diminished or lost. In addition, the AOPL and ARCO contend that oil pipelines differ from traditional public utilities because oil pipelines face competition which means they may not earn their cost of services or have recourse to their shippers if the deferred tax funds are diminished or lost.

ARCO is not entitled to earn a return from ratepayers on cost-free capital. This is because its shareholders' capital is not at risk. In addition, ARCO is not entitled to any ratepayer compensation for any loss or diminishing of this noninvestor capital on its part. To conclude, ARCO must credit its deferred taxes against its rate base because this is the Commission's long standing method of ensuring that it does not earn a return on cost-free capital.

2. Deferred Tax Deduction—Before or After Trending

Under TOC, the pipeline's allowed return on capital is determined by multiplying the weighted average cost of capital times net rate base.[41] The weighted average cost of capital consists of a weighted real rate of return on equity and a weighted nominal rate of return on debt. The weighted difference between the nominal and the real rates of return on equity is multiplied times net rate base to determine the rate base write-up or trended amount. The instant issue is whether the rate base should be trended before or after deferred taxes are credited against the rate base. The ALJ concluded that the rate base should be trended before it is credited with deferred taxes. Staff excepts to this conclusion and argues that the trending should occur after the rate base is credited with deferred taxes. ARCO supports the ALJ.

The ALJ put the issue in focus and decided it is based on the following example and discussion:

> The issue comes into better focus if we look at it in the context of a concrete, though hypothetical, example. Assume that a pipeline has a . . . rate base of $1 million, and an ADIT [Allowance for Deferred Income Taxes] balance . . . of $100,000. Assume also that the inflation factor in the allowed rate of return on equity is four percent. Under Opinion No. 154-B, the company would be entitled

[40] 31 FERC ¶ 61,377, at p. 61,839 n.55.

[41] *See* discussion, *infra*, of the issue of "Application of Rate of Return to Rate Base."

to "store" that four percent of its . . . rate base, or $40,000, in the rate base by way of a write-up. To accomplish this, we must multiply the $1,000,000 . . . rate base by 1.04. That gives us a product of $1,040,000. If we deduct the $100,000 of ADIT balance from this amount, the result is $940,000, $40,000 more than the $900,000 difference that results from deducting the ADIT balance of $100,000 from the . . . rate base of $1,000,000. Hence, the pipeline under this methodology has received the four percent write-up to which it was entitled.

Under the Staff's method, however, the company receives only $36,000. The Staff's method would require deducting the ADIT balance of $100,000 from the . . . rate base of $1,000,000 as a first step, then multiplying the $900,000 difference by 1.04 to produce a written-up . . . rate base of $936,000. Interestingly enough, this is the same figure that results from writing up *both* the . . . rate base and the ADIT balances and then netting the latter against the former *viz.*:

. . . Rate Base	$1,000,000 x 1.04 =	$1,040,000
ADIT Balance	$ 100,000 x 1.04 =	$ 104,000
	Difference	$ 936,000

This demonstrates that the effect of the Staff's methodology is to write up the ADIT balance before deducting it from the . . . rate base. There is no justification for doing so. To use the Staff's method is to deprive [ARCO] of a portion of the benefit of trending the rate base to which it is entitled.[42]

The Commission reverses the ALJ's decision. A pipeline's return allowance is determined with reference to its net rate base which is the gross rate base minus *accumulated* deductions or credits such as accumulated depreciation, accumulated amortized deferred earnings, and accumulated deferred taxes. This ensures that the pipeline earns a return only on capital invested in rate base that is not cost free. The same principle should apply when return is split between current return and deferred return. Both should be determined by multiplying the rates of return times the net rate base. Of course, allowed return is not determined between rate cases. However, under TOC, the rate base must be adjusted each year to account for the write-up and the appropriate rate base credits such as depreciation and deferred taxes to yield a net rate base for the next rate case. The trending in this circumstance should also be done after the rate base has been credited with accumulated depreciation and deferred taxes to ensure that deferred earnings relate only to capital invested in the rate base. The ALJ, by permitting trending on $1,000,000 as opposed to $900,000, has allowed deferred earnings of $4,000 on $100,000 of capital that is cost free. Staff's method does not, in effect, write up the deferred tax balance. The ALJ's demonstration merely keeps the rate base and deferred tax amounts *in sync*. It does not show a deferred tax write-up which keeps the pipeline from receiving the write-up to which it is entitled; $1,000,000 − $100,00 = $900,000 × 1.04 = $936,000. The $100,000 in deferred taxes represents cost free capital on which there should not be any write-up.

3. Deferred Taxes on Oil Inventory Write-Down

[42] 43 FERC ¶ 63,033, at p. 65,395.

ARCO's crude oil inventory stems from two sources. The first is its "pipeline loss allowance" or PLA. This oil is acquired because ARCO delivers less oil to shippers than it has received from the shippers. The second source is oil purchased by ARCO for its own account to replenish its oil inventory.

In 1986, ARCO wrote down the value of its oil inventory on its books to reflect the drop in the price of oil. However, ARCO did not and could not deduct that loss in value in computing its actual income taxes. ARCO wants to accrue negative deferred taxes on account of the write-down and thereby decrease its deferred tax account and associated rate base credit. The ALJ disagreed on the ground that the write-down is not a concrete expense because the exact loss will not be known until the oil is sold.[43] The ALJ held this fact distinguishes the write-down from such items as dismantling, removal, and restoration expenses where the pipeline reflects a charge which is not a current tax deductible expense. ARCO excepts and argues that the Commission should uphold its negative deferred tax adjustment related to its oil inventory write-down or, in the alternative, if the Commission disallows that adjustment, permit ARCO to adjust its working capital allowance upward to reinstate the value of the written-down inventory.

Negative deferred income taxes result when the pipeline incurs an expense in its cost of service that is not afforded contemporaneous expense treatment by the Internal Revenue Service. This means that the pipeline's tax allowance contains no sum for paying the taxes owed by virtue of the IRS' denial of the expense. The pipeline must pay the taxes out of its own capital and is, therefore, entitled to the rate base debit achieved by decreasing its deferred tax account. As the ALJ recognized, dismantling, removal, and restoration expenses are a prime example of this situation. The pipeline collects the money over time but includes it as an expense in its actual income taxes only when the expense is incurred. ARCO's write-down of the value of its oil inventory does not warrant such treatment. The simple reason is that the write-down not only is not a tax expense but it is not a cost-of-service expense paid by ratepayers. There is no mismatch to create a negative tax allowance.

ARCO includes crude oil inventory in its computation of working capital which is included in its rate base because "the stockholders are entitled to a return on the capital they have supplied to permit the company to conduct its day-to-day affairs prior to the time they are reimbursed by the ratepayers through payment of the rates."[44] Hence, ARCO may include its crude oil inventory in its working capital allowance at a value not to exceed cost.

II. Return Allowance Issues

A. *Application of Rate of Return to Rate Base*

The traditional regulatory method for determining a company's overall return allowance is known as the weighted cost of capital approach because the weighted cost of capital is multiplied times the net original cost rate base to obtain the overall return in dollars. This method matches rate of return on capital invested in the company with the corresponding net cost of the assets devoted to the regulated enterprise. It operates as follows. Assume a net original cost rate base of $1,000, a debt ratio of 70 percent, a

[43] The ALJ applied the rationale underlying the tax law's "all (events" test: a taxpayer may not deduct "an inventory loss until all events necessary to establish the exact amount of the loss have transpired, i.e., that, the inventory is actually sold." 43 FERC ¶ 63,033, at p. 65,395.

[44] *Id.* at p. 65,397.

debt cost of 8 percent, an equity ratio of 30 percent, and an equity cost of 16 percent. A debt equity chart determining the weighted cost of capital would be:

Debt	70%	8%	5.6	
Equity	30%	16%	4.8	
			10.4	percent

Allowed return would be $104 — 10.4 percent times $1,000. This is the after-tax return. The tax allowance is determined by "grossing up" the equity return. If the tax rate were 50 percent, then the company would be entitled to an additional $48 (50/50 times $48 (4.8 percent times $1,000)).

The instant issue arises because Opinion No. 154-B established a starting rate base for then existing pipelines which includes a write-up over net original cost. As described above, the starting rate base is the sum of the equity ratio times the net reproduction part of the valuation rate base and the debt ratio times net original cost. For example, assume the same debt and equity ratios and net reproduction cost of $1667 and net original cost of $1,000. The starting rate base would be $1,200 (30 percent times $1667 + 70 percent times $1,000). The staff advocates using the weighted cost of capital approach to 'determine ARCO's after tax return allowance. This is illustrated as follows, assuming an inflation rate of 7 percent to determine Opinion No. 154-B's real rate of return on equity.

Debt	70%	8%	5.6
Equity	30%	9%	2.7
			8.3

Allowed return would be $99.60 — 8.3 times $1,200.

ARCO argues for a different methodology. It would create two rate bases consisting of a Trended Original Cost (TOC) rate base for equity and a Depreciated Original Cost (DOC) rate base for debt. TOC would be $500 (30 percent times $1,667) and DOC would be $700 (70 percent times $1,000). Return would be $500 times 9 percent, $45 and $700 times 8 percent, $56 — a total of $101. The ALJ adopted ARCO's approach which is also supported by the AOPL.

The pertinent parts of Opinion No. 154-B are as follows:

> First, TOC, just like net depreciated original cost, requires the determination of a nominal (inflation-included) rate of return on equity that reflects the pipeline's risks and its corresponding cost of capital. Next, the inflation component of that rate of return is extracted. This leaves what economists call a "real" rate of return. The real rate of return times the equity share of the rate base yields the yearly allowed equity return in dollars. The inflation factor times the equity rate base yields the equity rate base write-up. That write-up, like depreciation, is written-up or amortized over the life of the property.[45]
>
> *Relationship of Rate Base and Capital Structure*
>
> We describe the relationship between rate base and capital structure by an illustration. Assume a starting rate base of $1,200 a debt ratio of 70%, a debt cost of 8%, and equity ratio of 30%, a nominal equity cost of 16%, an inflation rate of 7%, and a real equity cost of 9%. A debt equity chart would be:

Debt	80%	8%	5.6
Equity	30%	9%	2.7
			8.3

[45] 31 FERC ¶ 61,377, at p. 61,834.

Allowed earnings would be $99.60. The rate base write-up would be $25.20 minus the amount amortized.[46]

The ALJ concluded that the first quoted language controlled and that the illustration under the heading *"Relationship of Rate Base and Capital Structure"* referred to new pipelines and not to existing pipelines. He therefore concluded that ARCO's approach was consistent with Opinion No. 154-B. He criticized staff's approach as understating the equity return to which ARCO is entitled under TOC. The staff excepts and argues that Opinion No. 154-B supports the weighted cost of capital method and not a method that was "produced fictitiously by the development of the TOC and DOC rate base produced by the Opinion No. 154-B formula."[47] ARCO and the AOPL support the ALJ's decision.

The ALJ misinterpreted Opinion No. 154-B. The quoted description of TOC was merely a general statement about how TOC works. The quoted illustration was a specific description of how return was to be derived and referred to existing and not new pipelines as evidenced by the assumption of a starting rate base. That term applies only to existing pipelines. In addition, the Commission adheres to the weighted cost of capital approach for oil pipelines. The starting rate base was adopted as a one-time adjustment to arrive at an appropriate rate base to be trended under the TOC methodology. The starting rate base was a means of bridging the "transition from valuation to TOC."[48] The formula for deriving the starting rate base did not permanently assign dollars to equity and debt rate bases. Rather, the formula yielded a single number starting amount to be used [in] lieu of the replaced valuation rate base in the new original cost regime as a derived starting value for the existing plant or assets in service. An apt analogy is construction work in progress where plant is constructed, for example, using 100-percent equity capital but put into rate base when there is both debt and equity capital. The 100-percent equity rate base is converted through the weighted cost of capital approach into a rate base, in effect, financed now at the debt and equity ratios. In sum, the starting rate base is a single amount rate base value which adjusts to the debt and equity ratio as would a net original cost rate base.[49]

The tax component issue was resolved in Opinion No. 154-C where the Commission determined that the weighted cost of debt should be multiplied times the net depreciated original cost rate base to derive the interest deduction. In the example, this would be 5.6 percent times $1,000, a product of $56.

B. *Capital Structure for Return Purposes*

Opinion No. 154-B stated as follows with respect to capital structure:

> The Commission believes that ... [the actual capital structure] approach is appropriate for oil pipelines. The actual capital structure could be the actual capital structure of either the pipeline or its parent. The Commission concludes that a pipeline which has issued no long-term debt or which issues long-term debt to its parent or which issues long-term debt guaranteed by its parent to outside investors should use its parent's actual capital structure.[50]

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[46] *Id.* at p. 61,836. The $25.20 is determined by multiplying 7% (inflation rate) times 30% (equity ratio) times $1,200.

[47] Brief on Exceptions at 17.

[48] 31 FERC ¶ 61,377, at p. 61,833.

[49] The equity capitalized into rate base under TOC also goes into a single rate base.

[50] 31 FERC ¶ 61,377, at p. 61,836.

ARCO's parent, the Atlantic Richfield Company, had a capital structure as of the end of the test year (December 31, 1986) of 55.88 percent debt and 44.12 percent equity. The ALJ concluded that if a capital structure was needed, he would adopt Atlantic Richfield's capital structure because it is an actual capital structure rather than a "calculated number based largely on historical events."[51] That refers to ARCO's 14-year study of Atlantic Richfield's average capital structure which the ALJ rejected. ARCO excepts.

ARCO argues that Atlantic Richfield's capital structure should not be used because it "is far out of line with what would be reasonable for a highly competitive oil pipeline such as [ARCO]"[52] and because it is "not typical of Atlantic Richfield's capital structure from a historical point of view."[53] ARCO argues that the Commission should adopt either the 27.3 percent debt ratio sponsored by it or the 35.99 percent debt ratio sponsored by the Commission staff for the starting rate base (Atlantic Richfield's debt as of June 30, 1985).

While it is the Commission's general policy to use actual capital structures for the purpose of developing the weighted rates of return for gas and oil pipelines, the Commission has fashioned an exception where an equity ratio moves upward beyond generally accepted limits and it would be necessary to prescribe an anomalous rate of return on equity to mitigate the adverse effects on ratepayers of the abnormally high equity ratio.[54] The Commission believes that this policy should also apply in the circumstance of an anomalously low equity ratio when three conditions are met. First, the capital structure must be that of the parent.[55] Second, the parent's capital structure must not be representative of the pipeline's risks. Third, the anomalous capital structure cannot be accounted for via an adjustment to the pipeline's rate of return on equity. ARCO meets the first two tests. The appropriate capital structure under Opinion No. 154-B is that of its parent. In addition, the Commission agrees with the ALJ's conclusion that ARCO's risks are greater than those faced by the six natural gas pipelines used by the staff in its rate of return study. Hence, a 55.88 percent debt/44.12 percent equity capital structure is abnormal for a company of ARCO's risks.[56] However, the Commission will not adjust the capital structure. Rather, it will account for the capital structure's somewhat high debt ratio and low equity ratio in determining ARCO's rate of return on equity.[57]

C. *Rate of Return on Equity*

ARCO proposed a nominal rate of return on equity of 14.1 percent. The staff proposed a nominal rate of return on equity of 12.5 percent. After an exhaustive discussion of the proposals, the ALJ concluded that ARCO was entitled to a nominal rate of return on equity of 13.15 percent.[58] Both ARCO and the staff except. Most pertinent to the ALJ's discussion was his conclusion that ARCO "faces risks that are considerably more severe than those imposed on shareholders of the six natural gas

[51] 43 FERC ¶ 63,033, at p. 65,379.

[52] Brief on Exceptions at 81.

[53] *Id.*, quoting the staff's Initial Brief to the ALJ at 47.

[54] *E.g.*, *Alabama-Tennessee Natural Gas Co.*, 38 FERC ¶ 61,251, *reh'g granted in part and denied in part*, 40 FERC ¶ 61,244 (1987).

[55] If the regulated company raises its own debt capital with no parent guarantees, there is no reason to impute equity.

[56] In 1986, the average capital structure for major gas pipelines consisted of 45 percent debt (and preferred stock) and 55 percent common equity. Statistics of Interstate Natural Gas Pipelines 1987, Energy Information Administration, Washington, D.C.

[57] The high end of equity is ARCO's own recommended capital structure of 35.99 percent debt and 64.01 percent equity.

[58] 43 FERC ¶ 63,033, at pp. 65,382-90.

pipelines that [the staff's witness] selected for his comparison group."[59] The ALJ adjusted the staff's witness' proposal from 12.5 to 12.9 percent to account for a technical error and the failure to adequately account for risk.[60] The Commission agrees with [the] ALJ that "[t]here is no method of making such an adjustment [for risk] with mathematical precision."[61] However, the Commission believes that the ALJ's upward adjustment is insufficient and that ARCO is entitled to a nominal rate of return on equity of 1.2 points over the high end of staff's proposal as modified by the ALJ to adequately account for its risks as found by the ALJ and for its somewhat abnormal capital structure. Hence, ARCO is entitled to a nominal rate of return on equity of 14.1 percent.

D. *The AFUDC Earnings Rate*

The ALJ concluded that the equity portion of the AFUDC rate should equal the nominal rate of return. The Commission agrees that 14.1 percent should be the rate of return on equity for AFUDC purposes as of the effective date of ARCO's rates in this proceeding (April 1, 1986). ARCO argues that the AFUDC earnings rate must be adjusted for computing AFUDC for construction projects between the date of its starting rate base (January 1, 1984) and 1986: that is, in 1984 and 1985. ARCO would adjust its rate of return on equity by determining the 1986 premium over debt. It would subtract Moody's A-rated corporate debt rate for 1986 of 9.95 percent from 14.1 percent,[62] a premium of 4.15 percent. It would add the 4.15 percent to the Moody's A-rated corporate debt rates for 1984 and 1985 of 13.74 and 12.28 percent, respectively. It concludes that "[a]t the very minimum, [its] 1984 AFUDC equity earnings rate should not fall below the 13.74 percent average cost of corporate debt in that year." The ALJ rejected ARCO's adjustments. He stated that it is not unusual for this to occur between equity and debt rates. The staff supports the ALJ and cites *Lear Petroleum Corp.* where the Commission stated that "[t]he risk differential between bonds and common stock is not constant, and at times it may even be negative."[63] Hence, the ALJ, supported by staff, would use 14.1 percent as the rate of return on equity for determining AFUDC for 1984 and 1985.

The equity rate of return embedded in the AFUDC rate should be the equity rate of return in effect at the time of the construction of the facilities. The problem in this proceeding is that there was no equity rate of return in effect for ARCO for the years 1984 and 1985. In those years, ARCO's rates were computed pursuant to the ICC's valuation methodology of an eight percent overall rate of return on valuation rate base. In late 1985, the Commission, as discussed *supra*, adopted a TOC rate base and permitted a starting rate base based on the pipeline's last valuation at the end of 1983. This meant that additions to rate base in 1984 and 1985 would be at their original cost, including AFUDC.

The rate of return on equity determined in this proceeding is perforce not automatically representative of the reasonable rate of return on equity for 1984 and 1985. On the other hand, the AFUDC rate of return does not necessarily represent a current reasonable rate of return [on] equity in normal circumstances. In light of the

[59] Id., at p. 65,387. Both ARCO and staff proposed an inflation factor of 3.8 percent to derive their real rates of return on equity.

[60] 43 FERC ¶ 63,033, at p. 65,390. The key risk is competition.

[61] *Id.* Staff does not except to the ALJ's adjustment for the technical error which is staff's failure to use the quarterly payment of dividends in its Dcf analysis.

[62] ARCO used the 13.15 percent rate of return on equity adopted by the ALJ. We have adjusted to 14.1 percent in the example.

[63] 42 FERC ¶ 61,015, at p. 61,050 (1988).

difficulties involved, the Commission will adopt ARCO's approach and permit it to use a rate of return on equity for AFUDC purposes of 17.0 percent for 1984 and 1985.

III. Oil Shortage Expense

ARCO experiences the loss of oil in transit from a variety of causes such as evaporation. ARCO's delivery obligation is the oil tendered by shippers minus a 0.2% pipeline loss allowance (PLA). From 1980-1985, ARCO's actual oil losses exceeded its PLA. Hence, it had a shortage which it made up at its own expense either out of its own oil inventory or from open market purchases. The oil shortage account is treated as a cost-of-service expense and the oil inventory account is treated as an addition to working capital. However, during the 1986 test year, ARCO's actual losses were lower than its PLA, thereby creating a negative shortage expense which would be a deduction from working capital. The first nine months of 1987 produced a shortage again. The ALJ upheld ARCO's oil shortage expense of $1.3 million based on a six-year average as appropriate where the 1986 test year negative expense of $800,000 was atypical. He rejected staff's argument that three years is the Commission's averaging limit. Staff excepts and argues that "under the data available through the stipulated test year period, a downward trend has definitely been shown [and] [t]herefore, averaging is not appropriate and the 1986 test year figure of [a negative] $800,000 should be adopted."[64] ARCO responds that the test year oil shortage expense was anomalous and that its averaging mechanism is substantiated in the record.

The Commission agrees with the ALJ that the test year data is anomalous and should not be used in light of the 1987 data which indicates a reversal in any downward trend. The next issue is whether ARCO's six-year study should be used to derive the oil shortage expense. The Commission affirms the ALJ's adoption of ARCO's six-year average and his conclusion that ARCO's expert witness "was certainly qualified to vouch for the use of that period" as "long enough to provide a representative sample of actual business activity avoiding the distortion of short-term data, while being current enough to reflect the kind of results we are likely to see in the near-term future."[65]

The Commission orders:

(A) The Initial Decision of the administrative law judge is affirmed except as modified in accordance with this order.

(B) Within 45 days after issuance of this order (or 30 days after issuance of a final order on rehearing if there are requests for rehearing pending at the close of the 45-day period), ARCO shall file revised tariffs (and detailed supporting work papers) on 30-days notice in accordance with the findings and conclusions of this order, along with a proposed plan of refunds showing the detailed calculation of proposed refunds to particular shippers that will be necessary as a result of the actions taken in this order.

(C) Within 30 days after Commission acceptance of ARCO's revised tariffs and proposed refund plan filed pursuant to Ordering Paragraph (B), ARCO shall make refunds to its customers and file a refund report with the Commission showing the calculation and payment of any refunds that become necessary as a result of the actions taken in this order.

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[64] Brief on Exceptions at 11.

[65] 43 FERC ¶ 63,033, at p. 65,392.