Kuparuk Transportation Company
Order Affirming in Part, and
Modifying in Part, Initial
Decision, and Setting
Complaint for Hearing
55 FERC ¶ 61,122 (1991)

The Federal Energy Regulatory Commission (Commission) issued an order on April 25, 1991, in Kuparuk Transportation Company, 55 FERC ¶ 61,122, which affirmed in part and modified in part the Initial Decision issued on October 26, 1988, in Docket Nos. IS85-9-000 and OR85-1-000 (45 FERC ¶ 63,006 (1988)). The order also set for hearing a complaint filed by the State of Alaska (State) in Docket No. OR90-1-000 which challenged the reasonableness of Kuparuk Transportation Company's (Kuparuk) rates for 1988 and 1989.

The Commission agreed with both Kuparuk and the State that the unit-of-throughput (UOT) depreciation method was appropriate. However, the Commission reversed the Initial Decision on the use of an automatic rate adjustment procedure, known as the variable tariff mechanism. It concluded that the Interstate Commerce Act does not grant it the power to impose a variable tariff mechanism requested by the State and the Commission Staff. (55 FERC ¶ 61,122 at 61,366).

The Commission affirmed the Initial Decision on the issue of "carrier property balance" by finding that all accumulated deferred income taxes (ADIT) must be deducted from the book original depreciated cost of any property transferred to Kuparuk. (Id. at 61,368). On the issue of a starting point for trending, the Commission revised the Initial Decision by holding that the end of the test year methodology would be applied to determine the point from which both trending and depreciation would begin. (Id. at 61,370).

The Commission then addressed the issue of working capital. It revised the finding in the Initial Decision that: (1) Kuparuk would not be required to apply the Williams trending methodology (See Opinion No. 154-B, 31 FERC ¶ 61,377 (1985)) to working capital items included in Kuparuk's rate base; (2) Kuparuk cannot include 5508 feet of pipe in storage in its working capital; (3) Kuparuk must deduct property tax pre-payments from its rate base; and (4) Kuparuk's trending calculation is to be performed after ADIT is credited. (55 FERC ¶ 61,122 at 61,370-71).

The Commission ordered Kuparuk to apply its weighted average cost of capital to a single rate base instead of using two separate rates of return and two rate bases. The Commission also required an adjustment to the equity return to account for the deferred trended original cost (TOC) earning. (Id. at 61,371).

Concerning the allowance for funds used during construction (AFUDC), the Commission: (1) affirmed the Initial Decision by permitting AFUDC to be accrued beginning with the date construction costs are continuously incurred; (2) reversed the Initial Decision's determination that ADIT generated before operations began should not be deducted from the AFUDC accrued before Kuparuk began operations; and (3) agreed with the Initial Decision that FERC regulations permit only semi-annual compounding of AFUDC equity balances. (Id. at 61,371-61,372).
If § 61,122

Kuparuk Transportation Company, Docket Nos. IS85-9-000, OR85-1-000, and OR90-1-000

Order Affirming in Part, and Modifying in Part, Initial Decision, and Setting Complaint for Hearing

(Issued April 25, 1991)

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

[Note: Initial Decision of the presiding administrative law judge issued October 26, 1988, appears at 45 FERC ¶ 63,006.]

This order affirms in part, and modifies in part, an Initial Decision (ID) issued October 26, 1988, in Docket Nos. IS85-9-000 and OR85-1-000,¹ and determines the reasonableness of the initial rates filed in 1984 and 1985 by the Kuparuk Transportation Company (Kuparuk). These rates apply to common carrier transportation of oil between the Kuparuk River Unit oil field in northwest Alaska and a connection with the Trans-Alaska Pipeline System (TAPS) at the latter's Pump Station No. 1. This order also establishes standards for rates for the same services through December 31, 1987. This order also sets for hearing a complaint filed by the State of Alaska (State), on December 29, 1989, in Docket No. OR90-1-000, which challenges the reasonableness of Kuparuk's rates for the period January 1, 1988 through December 31, 1989.² The Commission will apply the standards contained in Williams Pipe Line, collectively Opinion Nos. 154-B³ and 154-C⁴, which set forth the Commission's cost-based principles for determining the reasonableness of oil pipeline rates.⁵

The methodology established here is to be applied by the parties and the administrative law judge (ALJ) in the proceeding addressing the State's second complaint concerning

¹ Order No. 493, exhibit C, Tariff Sheet Pagination Guidelines.
² Under section 16 of the Interstate Commerce Act (ICA), which governs oil pipeline rates, the Commission may award reparations for up to two years preceding the date the complaint is filed.
⁵ In Buckeye Pipe Line Company, 44 FERC ¶ 61,066, order on reh'g, 45 FERC ¶ 61,046 (1988), the Commission applied a light-handed regulatory approach and concluded that Buckeye's rates could be based on market forces, a standard less rigid 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.

¶ 61,122

Federal Energy Guidelines
Kuparuk's rates, filed December 29, 1989, in Docket No. OR90-1-000. The Commission is setting the State's 1989 complaint for hearing, rejecting Kuparuk's argument that the State's 1989 complaint is premature, and agreeing in part that action on the 1989 complaint should be held in abeyance until the Commission has completed review of the ID in Docket Nos. IS85-9-000 and OR85-1-000. This will permit the record to be updated based on the principles discussed in this order and using more recent information that may be available. Kuparuk may apply the rates determined by this decision to be just and reasonable for the years after 1987 on an interim basis until the Commission establishes rates that are just and reasonable for subsequent years in the case remanded by this order.

I. Background

Kuparuk is a partnership owned by the pipeline subsidiaries of four oil producers conducting oil recovery operations in the Kuparuk River Unit field.6 Kuparuk's facilities include a 24-inch pipeline approximately 37 miles long, the supporting structures (called vertical support members), two central production facilities, and a 12-inch and 10-inch pipeline facility connecting the two central processing facilities. Virtually all of the system is aboveground. It includes connections with the West Sak and Milne Point oil fields, which are adjacent to the Kuparuk Field Unit. Kuparuk began construction of the 24-inch pipeline in the Spring of 1983 and began operating it on October 6, 1984.

Before Kuparuk began its operations, the Kuparuk Pipeline Company (KPC) operated a 16-inch pipeline located on the same vertical support mechanisms between December 1981 and October 6, 1984. On the latter date KPC sold the 16-inch pipeline to the Oliktok Pipeline Company (Oliktok) for use as a natural gas pipeline. Oliktok rented the space on most of the vertical support mechanisms from Kuparuk for $432,814 per annum during the time the record was open in this proceeding. Oliktok's rates and revenue are not determined by the Commission under the ICA or the Natural Gas Act (NGA) because it involves the intrastate transportation of natural gas. Kuparuk also acquired most of the supporting vertical support mechanisms and central processing facilities from KPC on that date.

On October 3, 1984, Kuparuk filed an adoption notice, adopting KPC's existing transportation rate of 69 cents per barrel. On December 4, 1984, Kuparuk filed a tariff in Docket No. IS85-9-000 reducing its rate to 61 cents per barrel for movements through the Kuparuk line to Pump Station No. 1 and establishing a new rate of 55 cents per barrel for shipments from the West Sak connection to the same point. Kuparuk's existing rates were therefore filed before the date Opinion No. 154-B issued on June 28, 1985.

On January 3, 1985, the State of Alaska protested the rate Kuparuk filed in Docket No. IS85-9-000 and filed a complaint in Docket No. OR85-1-000 alleging the previously existing rate was unjust and unreasonable for the period October 3, 1984 through January 14, 1985. The Oil Pipeline Board suspended the new rates for one day, and permitted them to become effective on January 16, 1985, subject to investigation. On June 5, 1985, the 61 cent and 55 cent rates Kuparuk filed in December 1984 were set for hearing,7 and the two dockets were consolidated. Direct testimony and reply testimony were filed between May and October 1986, hearings were conducted in November 1986, and the record closed January 7, 1987. Briefs and reply briefs were filed in February and March 1987, and the ID issued on October 26, 1988. Exceptions and replies to exceptions were filed by the State, Kuparuk, the Commission staff, and the Association of Oil Pipelines (AOPL).

The ID consists of seven topics addressing: (1) whether the Williams methodology is appropriately applied to Kuparuk; (2) the structure of Kuparuk's rate base; (3) rate of return and capital structure; (4) treatment of nonjurisdictional property (revenue from the Oliktok Pipeline); (5) calculation of operating expenses, most importantly depreciation; (6) the proper rate levels for shipments from the Milne Point unit; and (7) the type of rate structure to be used for future rates, refunds, the use of the test period, and certain special amortization issues. Exceptions to the ID were filed on six of these topics.8 This order therefore discusses the following categories of issues: (1) the application of the Williams methodology; (2) rate base issues; (3) treatment of nonjurisdictional property; (4) rate of return, including cost of capital; (5) depreciation; (6) expense for demolition, removal, and restoration; and (7) other operating expenses. This order also dis-

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6 The pipeline affiliates are Kuparuk Pipeline Company (57 percent), BP Pipelines, Inc. (28 percent), Sohio Alaska Pipeline Company (10 percent), and Unocal Kuparuk Pipeline Company (5 percent). Kuparuk Pipeline Company is owned by Atlantic Richfield (ARCO).

7 31 FERC ¶ 61,269 (1985).

8 There were no exceptions to the ID's determination on the reasonableness of the Milne Point rates.
cusses the remedies, if any, to be applied in this case.

II. Discussion

A. The Williams Methodology

Prior to the issuance of Opinion Nos. 154-B and 154-C in Williams, supra, oil pipelines were entitled to earn a return on capital determined by multiplying the allowed rate of return times a valuation rate base. 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." Opinion No. 154-B adopted net depreciated trended original cost (TOC) as the appropriate form of rate base to replace the valuation rate base. In addition, Opinion No. 154-B adopted a starting or transition rate base in dollars for existing plant in order to "bridge the transition from valuation to TOC." 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," and that it would "more closely approximate the TOC rate base that would have existed had the ICC [Interstate Commerce Commission] not written-up debt [in the valuation formula]. It will ensure that the equity holder does not benefit from the write-up of debt financed assets...." The order also noted that "for the purpose of determining the starting rate base, [the] actual capital structure [to determine the debt and equity ratios] shall be the actual capital structure as of the date of this opinion." The Commission, in adopting TOC, was concerned about the ability of newer oil pipelines to compete with older oil pipelines. TOC alleviates this problem because it eliminates the front-end load associated with net depreciated original cost by reducing the 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 to permit new pipelines to compete with them. TOC changes the timing pattern for recovery of the equity component to foster competition.

After the application of the Williams methodology to the pipeline's rate base, the remaining rate issues involve typical cost-of-service issues such as throughput volumes, revenues, expenses, and cost of capital, and are determined using the Commission's usual procedures for determining whether rates are just and reasonable.

B. Application of the Williams Methodology to this Case

The parties have a fundamental disagreement whether the Williams methodology is appropriately applied in these proceedings. Specifically, the State and the Alaska State Regulatory Commission (ASRC), argued that the Williams methodology is not wholly applicable to this case. The ASRC argued that the TOC methodology results in lower rates in the early years and higher rates in the later years. The State and the ASRC further assert that this has the practical effect of making oil production in later years more expensive at the very time that the efficiency and productivity of a field are declining, and its production costs rising. They assert that Kuparuk's proposed depreciation methodology should fall outside the Williams methodology, and urge, with Kuparuk, the use of accelerated rather than straight line depreciation, a position opposed here since Kuparuk is a new pipeline and has never had the reasonableness of its rates determined under the ICC valuation based methodology.

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.


A variable tariff mechanism provides for a rate change to be filed on an annual basis. The annual filing typically adjusts rate levels to take into-account changes in throughput, net investment, corporate income taxes, and changes in gross rate base investment.
rather than a fixed rate tariff. They take this position to assure that Kuparuk does not over-recover its cost of equity as its rate base declines.

In addressing these disputes, the ID noted that the State utilized the basic cost conventions of Williams, and then attempted to modify Williams to reflect the particular circumstances the State believes exist in this case. The ID found that the State’s modification of the TOC methodology is based on its assertion that Kuparuk has a transportation monopoly, and therefore that the Williams methodology is inappropriate. The ID further noted that the State’s position varies from Opinion No. 154-B by using a front loaded method of depreciation, in this case a unit-of-throughput (UOT) method, in contrast to conventional straight-line depreciation.

The ID also concluded that the use of the UOT method is inappropriate because it would result in a rate profile that would resemble one using a depreciated original cost methodology rather than one rate profile resulting from the application of the traditional Williams methodology. The ID found that the Williams depreciation methodology is applicable to Kuparuk because Kuparuk is an oil pipeline. For the reasons discussed below in the section on depreciation costs, the Commission agrees with the State and Kuparuk that the UOT method is the most appropriate method under the circumstances, and will reverse the ID on the issue of depreciation. The Commission concludes that nothing in the Williams methodology, which focuses on the trending of the deferred equity return, precludes this result.

The ID’s conclusion on the issue of depreciation contrasts with its adoption of a variable tariff mechanism to govern future rates. The ID did so even though the ALJ thought such a device was not contained in either Opinion Nos. 154-B or 154-C. The ID noted that both the State and staff proposed that future rates be governed by a variable tariff mechanism, which would require Kuparuk to adjust its rates annually to reflect changes in cost factors. Staff’s variable tariff mechanism would account solely for changes in net investment base, throughput, and corporate income taxes, whereas the State’s method would account for virtually all changes in costs and throughput.

The ID also stated that staff asserted that a variable tariff mechanism might also account for changes in the cost of debt.

After rejecting Kuparuk’s arguments that the Commission lacks the authority to impose a variable tariff mechanism, the ID concluded that because it appears that Kuparuk’s rate base will steadily and significantly decrease every year, even assuming a modest amount of additional trending of the equity portion of rate base, a variable tariff mechanism in combination with a test year approach will better insure that Kuparuk will not over time overcollect a greater amount of return dollars on a greater portion of the rate base that no longer exists for regulatory purposes. Thus, even though nothing in the earlier Williams decisions would support the application of a variable tariff mechanism to oil pipelines, the ID accepted the arguments of the State and staff on the issue of the declining rate base. To this end the variable tariff mechanism adopted by the ID requires Kuparuk to file a variable tariff mechanism in a form satisfactory to the Commission, and to include in the variable tariff mechanism a method to adjust Kuparuk’s rates for changes in its rate base, throughput, and federal income taxes.

Kuparuk and AOPL except to the ID’s adoption of the variable tariff mechanism. They argue that section 6 of the ICA permits common carriers regulated by that Act to adjust rates at any time on their own motion and that nothing in section 6 of the ICA can be read to require a carrier to make periodic rate filings in a manner contemplated by the ID. They assert that to the contrary, the Supreme Court has stated unequivocally that “[a] carrier is entitled to initiate rates and to adopt such policy making as it deems wise subject to the revisory power conferred upon the Interstate Commerce Commission.” Kuparuk and AOPL note that a variable tariff mechanism was adopted in the case of TAPS, but that it was voluntary.

Kuparuk and AOPL also argue that a variable tariff mechanism overlooks the fact that section 15 of the ICA has different procedures depending on whether an investigation is of a rate filed by the carrier, or is in response to a complaint, or is on the ICC’s own motion. They point out that under section 15(7), the Commission Opinions, Orders and Notices 61,365

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17 The unit-of-throughput method calculates the annual depreciation charge based on the percentage of total throughput over the useful life of the pipeline represented by the estimated ‘volume’ to be handled each year. For example, if 100 units would be handled over the 20-year period the pipeline operates, and 10 units would be transported the first year and eight the second, the first year depreciation would be 10 percent of the rate base and the second year depreciation would be 8 percent. A similar method is the unit-of-production method, which is based on the annual percentage of the output of the field served by the pipeline over the field’s productive life. If the pipeline serves only one field, the two methods are identical since the useful life of the pipeline equals that of the field it serves.

18 See 45 FERC at p. 65,088.


mission may suspend a filed rate for up to seven months and investigate a changed rate. Investigations as a result of a complaint are concluded after a hearing under section 15(1) of the Act. They further note that the burden of proof is on the carrier filing the rate if a changed rate is involved under section 15(7), but that the burden of proof is on the complainant under section 15(1).

Kuparuk and AOPL further argue that neither section 15(1) nor section 15(7) authorizes imposition of a requirement for periodic rate filings. They also assert that periodic rate reviews illegally shift the burden of proof on establishing whether existing rates are just and reasonable from the shipper or Commission to the carrier, and deprive the carrier of its right under section 15(1) to a full hearing in complaint cases. They also maintain that because each rate change would be subject to suspension, a variable tariff mechanism precludes the carrier from collecting rates previously determined to be just and reasonable. Finally, they argue that the components of the variable tariff mechanism adopted in the ID are ill-defined and arbitrary, and that a variable tariff mechanism would fail to give shippers adequate notice of the rates to be paid as required by section 6 of the ICA. Kuparuk also argues that the role of the Commission in reviewing the formula is unclear, as is that of the parties who might protest its operation. Kuparuk also claims that the record in this proceeding does not support the conclusion that Kuparuk will experience a rapid decline in its rate base. Kuparuk argues that Commission policy strongly disfavors periodic rate review, citing early decisions in Trailblazer Pipeline Company,21 and argues that the clearest example of periodic rate review, the Commission's Purchased Gas Adjustment (PGA) mechanism, is voluntary.

The State argues that the Commission has the power to require periodic filings, and has done so in the past. The State argues first that a cost-of-service tariff is the "device most frequently used, and that under such a mechanism capital, depreciation, and operating costs are adjusted on a monthly basis. The State also cites the Commission's PGA mechanism as another example of a formula rate, and refers to the use of various tracking devices used in electric utility rate making as another example. The State further argues that the variable tariff mechanism is warranted in light of the fact that Kuparuk's cost of service is projected to decline by slightly more than 14 percent in the period 1985 through 1990, and that throughput is expected to substantially increase. The State further argues that the difference between projected throughput and actual throughput in the first two years of this proceeding would justify a 16-percent adjustment to Kuparuk's rates.22 These figures are the basis for the State's argument that Kuparuk's return on equity will increase rapidly, and that periodic rate review is appropriate.

The State recommends: (1) that the Commission adopt a variable tariff mechanism formula based on the Williams methodology, (2) that the formula be applied for the calendar years 1987-1989 using actual data for those years, (3) that each year thereafter Kuparuk file a tariff that is consistent with that formula, (4) that the formula adopt a true-up mechanism, and (5) that after filing its Form 6 (the Annual Report of Oil Pipeline Companies), Kuparuk should be required to resubmit a calculation of its previous year's tariff using actual data and adjust its current tariff to reflect any over or under recovery. The State further asserts that if the Commission does not adopt a variable tariff mechanism, it should not apply any determination made here beyond the period of the State's first complaint, and should determine the reasonableness of Kuparuk's rates for the period after December 31, 1987, in a separate proceeding.

The Commission concludes that the ICA does not grant it authority to impose the variable tariff mechanism requested by the State and staff. The Commission concludes that the requirement of an involuntary annual filing, and the related review of the reasonableness of Kuparuk's rates, violates the court's decision in New York Public Service Commission v. FERC.23 As is argued in Kuparuk's supplemental brief on exceptions, in PSCNY v. FERC the court held that FERC could not use its general

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21 18 FERC ¶ 61,244 (1982) (Opinion No. 138); 19 FERC ¶ 61,116 (1982) (Opinion No. 138-A); 36 FERC ¶ 63,008 (1986). Kuparuk attempts to distinguish Ozark Gas Transmission System, 41 FERC ¶ 61,207 (1987) (Opinion No. 273-A), on the grounds that the Commission determined that its section 5 authority was inadequate to protect consumers in that instance. However, the issue in both Trailblazer and Ozark is proper treatment of a rapidly declining rate base. In these two cases the Commission used a leveraged of protecting ratepayers since there was no regulatory procedure that would provide for regular filings that would modify the pipelines' costs and rates.

22 The State makes similar arguments in its second complaint, asserting that Kuparuk's annual throughput was 99,470,000 barrels in 1986, 103,241,000 in 1987, and 110,465,000 in 1988, and was estimated at 112,420,000 in 1989. It claims that in the same period Kuparuk's net property base declined from $111,029,000 in 1986 to $102,558,000 in 1988.

implementing authority under section 16 of the Natural Gas Act (NGA) to require Ozark Gas Transmission System (Ozark) to make filings every three years as a way of preventing excess equity returns on Ozark’s rapidly declining rate base. The court’s conclusion that the Commission could not shift the burden of proof as it is allocated under sections 4 and 5 of the NGA applies with equal force to the distinction in the allocation of the burden of proof under sections 15(7) and 15(1) of the ICA. The Commission concludes that it may not use its general ancillary authority under section 16 of the ICA to require periodic filings any more than it may require such filings under section 16 of the NGA.

In reaching this conclusion the Commission notes that the matter of periodic filings under the ICA appears to be a question of first impression. First, while it is true that none of the provisions of the ICA specifically authorize a requirement of periodic filings, they do not expressly prohibit such filings either. Second, the early Supreme Court cases from the 1920’s cited by Kuparuk do not address the point directly. Finally, the cases cited by the State all deal with the ability of the ICC to attach conditions to specific rates in the context of the ICC’s suspension power, which, as with that of this Commission, is discretionory. None of those cases deal with the issue of mandatory-periodic review.

The most instructive of the cases cited by the State, ICC v. American Trucking Ass’n, 467 U.S. 354 (1984), holds that there are significant limits to the ability of the ICC to retroactively reject a previously filed tariff, as this would deprive a rail carrier of its right to a hearing under the ICA. In making a limited exception to this rule, the Court then noted the difference between the ICC’s powers to reject tariffs before they are filed, and the procedural safeguards that exist to protect those tariffs that have already been accepted. In its analysis the Court also reviewed similar provisions involving the NGA and the Civil Aeronautics Act, and concluded that these statutes also distinguished between tariffs filed by the regulated entity, and those already on file that are subject to complaint or modification by the agency.

Given the Supreme Court’s analogy to the provisions of the NGA in determining the importance of burden of proof under the ICA, the Commission concludes that the relationship of sections 15(7) and 15(1) of the ICA is similar to that of sections 4 and 5 of the NGA. In PSCNY v. FERC, supra, the court rejected the Commission’s argument that the annual PGA mechanism supported the proposition that the Commission could impose a three-year period filing requirement on Ozark, explicitly noting that the PGA is voluntary, and that therefore the court’s concern for protecting distinctions between sections 4 and 5 of the NGA did not apply. By analogy, the variable tariff mechanism adopted in the TAPS proceeding, which involved the same economic issues at issue here, was also voluntary. The variable tariff mechanism advanced here is not voluntary and the Commission concludes that the court’s rationale in PSCNY v. FERC, supra, is applicable to the instant case. If the Commission were to impose a variable tariff mechanism in this proceeding, it would be using its general ancillary power under section 16 of the ICA to eliminate the distinction between voluntary rate filings under section 15(7) by the carrier and complaints against the carrier’s filed rates under section 15(1) of the ICA, the action that was rejected in PSCNY v. FERC, supra. Therefore the Commission will not impose the variable tariff mechanism urged by staff and the State.

The State further argues that the variable tariff mechanism it proposes is in fact an annual cost-of-service tariff, and that therefore it does not violate the ban against periodic rate filings contained in PSCNY v. FERC, supra. However, as the State’s own citations demonstrate, such tariffs are used reluctantly and then only until traditional cost-of-service elements can be more firmly established. As Kuparuk correctly notes, the case most heavily relied on by the State and staff involved the consent of the pipeline involved.

Unlike the procedures under section 5 of the NGA, section 16 of the ICA provides for reparations for up to two years before the date the

26 Kuparuk correctly states that the annual filings under the TAPS voluntary settlement would be subject to protest as would any new rate change filing under the ICA, and the burden of showing that the new rate is just and reasonable would be on the TAPS carriers. See TAPS Settlement Order II, 35 FERC ¶ 61,425, at p. 61,983, n.17 (1986).
27 The result is consistent with the Commission’s recent decision in Trailblazer Pipeline Company, 50 FERC ¶ 61,188 (1990), in which the Commission rejected a request by the State of New York for a periodic rate review of two years, citing PSCNY v. FERC, 50 FERC at p. 61,599, n.84. See also Overthrust Pipeline Company, 53 FERC ¶ 61,118, at pp. 61,371-72 (1990).
28 See American Louisiana Pipeline Company v. FPC, 344 F.2d 525 at 526-27 (1965), which holds that a cost-of-service tariff was properly used when the Commission lacked information on current costs and volumes and the tariff was voluntarily accepted by the pipeline.
29 PANGL, 31 FERC at p. 61,500 (1985).
complaint was filed if the subject rates are determined to be unjust and unreasonable. This permits the State to protect its interest in maintaining just and reasonable rates by filing complaints periodically against existing rates at such times as it believes that Kuparuk's cost factors have caused the rates to become unjust and unreasonable, and to obtain reparations for the period up to two years before the complaint was filed. This procedure provides the State with an alternative form of relief to the variable tariff mechanism that the Commission has rejected here. In fact, the State has filed such a complaint in Docket No. OR90-1-000 for the calendar years 1988 and 1989. In light of that complaint, the Commission will not determine whether Kuparuk's rates for 1988 and 1989, and subsequent years, are just and reasonable, but will defer a final decision until completion of the proceeding on the reasonableness of the rates for those, and subsequent, years. In determining the reasonableness of the rates for those latter years, the ALJ and the parties are directed to produce a record and conclusions applying the principles discussed in this order.

C. Rate Base Issues

Rate base issues address the type and amount of capital upon which Kuparuk will have an opportunity to earn a return. The ID addressed six such issues: (1) carrier property balances; (2) trending issues under the Williams methodology; (3) allowance for funds used during construction (AFUDC); (4) accumulated deferred income taxes (ADIT); (5) working capital; and (6) accumulated depreciation. Exceptions were filed to all the issues except accumulated depreciation. The remaining five issues are discussed below with the accumulated deferred income tax (ADIT) and working capital issues treated in the context in which they occur, namely carrier property balances, the trending of working capital, and AFUDC.

1. Carrier property balances

Kuparuk acquired most of the supporting vertical support mechanisms and central processing facilities from KPC on October 6, 1984. One important issue in this case concerns the rate base treatment to be accorded the assets thus transferred to Kuparuk from KPC. This turns principally on the treatment of ADIT balances incurred before the transfer of the assets to Kuparuk.

The ID concluded that Kuparuk should value the assets acquired from KPC at their net depreciated book value less the ADIT balances associated with the transferred property. Kuparuk excepts, claiming that the ADIT balances should not be deducted from the assets transferred to it from KPC. Kuparuk claims that because the transaction was at arms length, and because greater efficiency results, it is entitled to a higher rate base for regulatory purposes. Kuparuk further argues that greater efficiency resulted when Kuparuk built a new 24-inch pipeline, replacing the 16-inch pipeline previously operated by KPC, and that rates dropped when that facility entered service. Kuparuk further asserts that its position is consistent with the tax provisions of the partnership documentation that created it.

Staff and the State argue that no efficiencies were obtained from the assets, i.e. the vertical support mechanisms and central processing facilities, transferred to Kuparuk because those assets were capable of carrying the new 24-inch pipeline and the previously existing 16-inch pipeline simultaneously. Therefore, they argue, any increase in efficiency came solely from the construction of the 24-inch pipeline, and not from the transfer of existing assets from KPC to Kuparuk. Under these circumstances, they claim, Kuparuk has not met the test of Farmers Union II requiring it to demonstrate by clear and convincing evidence that an increase in efficiency has resulted, and that, therefore, Kuparuk cannot claim an increase in its rate base even if it is assumed (which the State and staff dispute) that a sale occurred. They also argue that Kuparuk’s theory does not conform to the tax provisions of its own partnership document since that document specifically provides that each of the contributing parties will obtain the tax benefits and liabilities related to that partner's capital contribution. They assert that this means that the benefit of any diminished tax liability will accrue solely on KPC because of the approximately $19 million in ADIT it obtained before transferring any assets to Kuparuk.

The Commission concludes that the ADIT associated with the transferred assets should be deducted from Kuparuk's rate base. ADIT reflects the difference between depreciation for tax purposes and depreciation for book purposes. Federal income taxes paid in early years are less than those recognized by the Commission for book and rate making purposes. This is because the Internal Revenue Code permits the use of accelerated depreciation while the Commission normally requires straight line depreciation of the pipeline's property accounts. In the early years of a pipeline project, the difference between the federal income tax effect of the two different levels of depreciation is accumulated in Account No. 282 (Accumulated Deferred Income Taxes — Other Property). In
later years, when book depreciation exceeds the accelerated tax depreciation under the Internal Revenue Code and the income taxes increase due to the reduced depreciation expense deductions, the pipeline reduces the balance in Account No. 282 to reflect the payment of the previously deferred taxes owed. In the meantime, the pipeline has the time value benefit, i.e., the interest free use of the funds that otherwise would have been paid in taxes.\(^{31}\)

The time value benefit of the ADITs was not eliminated when the property was transferred to the new Kuparuk partnership. The ADITs continue to benefit the partner who contributed any asset that generated ADITs before the assets were contributed to the partnership. The benefits and the liabilities associated with those contributions are allocated among the partners based on the terms of the partnership agreement. The Partnership Agreement does not address the relationship of the partners and the ratepayers. Regardless of how the benefits from the ADITs are allocated among the partners under the Partnership Agreement, the ratepayers will continue to pay for the current depreciation at the book rate, and for the return on the book value of Kuparuk's assets. Commission policy, as stated in its regulations,\(^{32}\) and recent Commission and court decisions,\(^{33}\) requires that the ratepayer burdened by the payment for the assets should receive the tax benefits that result from any ADITs. Thus, the fact that the Partnership Agreement provides that the tax benefits and liabilities of any contributed asset "will remain" with the partner that contributed the particular asset addresses only the tax liabilities and benefits of the respective partners,\(^{34}\) and does not defeat the Commission's policy providing that the ratepayer should have the benefits that may inure to all the partners as result of the ADITs taken before or after the partnership was created.

Kuparuk argues in the alternative that the transfer of the vertical support mechanisms and related facilities to Kuparuk was a purchase and, since efficiencies result, the higher depreciation and asset basis is warranted. The argument is without merit. The Partnership Agreement clearly states that all transfers to the Kuparuk partnership were capital contributions and that none involved a sale.\(^{35}\) "Contribution" is a term of art in partnership and partnership tax law. Its meaning is the transfer of value for a percentage interest in the partnership. Similarly, "purchase" means the acquisition of the assets for consideration other than a partnership interest, usually cash or an instrument evidencing indebtedness.\(^{36}\) Neither of these two latter types of consideration is involved here, and their absence defeats Kuparuk's argument that a sale occurred in this proceeding.

Moreover, as the State and staff point out, all of the claimed efficiencies come from capital expenditures made for the 24-inch pipeline after the vertical support mechanisms and other existing assets were transferred. At the time they were transferred these assets were capable of supporting up to six different pipelines of various sizes. The gains in efficiency come not from the transferred assets but from the new 24-inch pipeline that was constructed on the assets that were transferred to Kuparuk. These gains would have occurred whether the transaction involved a transfer of assets to the partnership, the lease of the vertical support mechanisms and other facilities to the partnership with the partnership owning only the new 24-inch pipeline, or if KPC built the new line solely with its own capital. As staff asserts, the ratepayers' right to a lower rate base should not be defeated by the form which this transaction has taken. Therefore, Kuparuk has failed to meet the test under *Farmers Union II* that additional efficiencies would benefit the ratepayer and is not entitled to a higher rate base for regulatory purposes. The ID is affirmed and KPC's accumulated ADIT must be deducted from the book original depreciated cost of the transferred property.

2. Trending Issues

Under *Williams*, once carrier property balances and the other elements of a pipeline's asset base are established, that portion of the equity return that is deferred is trended using the formula explained in *Williams*. The issues raised on exceptions include: (1) the starting point for the trending of the deferred equity component, (2) the definition of the working capital to be trended, and (3) the calculation of the debt and equity components that are applied to the rate base.

a. Starting point for the trending of carrier property balances

The ID concluded that the starting point for trending of the deferred equity component should be the average of the opening and clos-

\(^{31}\) See *Trailblazer*, supra, 50 FERC at p. 61,588.


\(^{35}\) Id at pp. 10-11.

\(^{36}\) Id. at pp. 9, 12-13.
ing balances of account in the year in which the trending begins, i.e., the point at which the rates become effective. The staff supports this conclusion, and Kuparuk excepts. The ID found that the averaging methodology is more likely to protect consumers against a rapidly declining rate base and is not inconsistent with the Williams methodology. Kuparuk argues that a one-day, beginning of year balance is the proper starting point, and that effective application of the Williams methodology depends on the use of such a single starting point for trending carrier property balances. Kuparuk further asserts that the example contained in Opinion No. 154-B contemplates a beginning of the year single point methodology for determining the portion of the rate base to be trended. 37

Staff argues that the example in Opinion No. 154-B does not address the issue at hand, that it is based on the now-discredited ICC method of rate base valuation, and that there is no need to continue that method if there is a more accurate way to measure the assets that will actually be in service during the year. Staff further argues that for this reason the Commission has expressed a strong preference for the averaging approach for gas pipelines and electric utilities.

The Commission reverses the ID's determination to use the averaging method. In setting gas pipeline rates, the Commission normally uses the end of the test year plant balance as the starting point for depreciation of plant and facilities in the year in which the new rates will apply. Williams implies that the starting point for trending is the opening capital plant balance in the year that trending will occur, i.e., the first year in which the rates at issue will actually apply. In fact, in both ARCO and Buckeye, supra, the rates were designed, and accepted, based on the end of the test year method. Thus, while averaging might lead to a lower increase in the trending component than under Williams, the Commission concludes the rate base conventions for the asset accounts of oil pipelines should continue to be the same as gas pipelines, 38 and will apply the end of the test year methodology for determining the point from which both the trending and depreciation will begin. This will result in consistency in regulatory policy and will conform to the technical requirements of the Williams methodology. This requires that trending, depreciation, and the amortization of the equity mark-up all begin at the same time. The depreciation calculation is subject to periodic review by complaint, with reparations, as was discussed earlier in this order.

b. The Definition and Trending of Working Capital

The ID concluded that Kuparuk should be permitted to apply the Williams trending methodology to working capital items included in Kuparuk’s rate base, and permitted Kuparuk to include 5508 feet of pipe in its working capital account. Staff excepts, noting that working capital is normally replaced on an annual basis, is expensed, and is therefore automatically replaced at the higher prices. While the State agreed that working capital should be trended, it argues that one item, pipe in storage, does not exist in Kuparuk’s accounts and should be deleted from its rate base, and that a second item, an allowance for tax prepayments, fails to recognize that there are offsetting balances later in the year that should also preclude that item from being included in working capital.

The Commission will reverse the ID on these working capital related issues. A pipeline is permitted to earn a return on a 13 month average balance of cash working capital items. Staff argues that working capital items are replaced on a regular basis, and therefore should be excluded from the trending methodology since they are consistently replaced at higher prices. Staff identifies such items as quarterly insurance payments to highlight the narrow distinction between working capital items, and normal operating expenses, which are not trended since they are reflected in annual operating expenses.

The Commission notes that because a pipeline incurs a carrying cost on working capital items, it is allowed a rate of return on its investment in working capital. Under the ID, Kuparuk would receive a return based on the real cost of equity rather than the nominal cost of equity as is the case with other working capital items that are normally expensed on an annual basis. Consistency with the Williams methodology requires that the equity component of all items included in the pipeline’s rate base be trended under that methodology. The pipeline would lose the portion of its equity return that would be attributed to inflation if trending of the working capital items were not permitted.

The Commission also agrees that Kuparuk has not established that it actually maintains a working inventory of 5508 feet of pipe. As noted in the State’s Brief on Exceptions, 37 31 FERC at p. 61,834.

38 In recent gas pipeline cases involving pipelines with a rapidly declining rate base the Commission has adopted a levelized annuity methodology. See Trail-
Kuparuk's books do not show any such materials or supplies, and the sole source Kuparuk presents is a consultant's study that antedates its official reports to the Commission. The working capital return should be on documented inventory, not on an estimate that appears based on industry custom. Kuparuk may trend its working capital using the Williams methodology, but is directed to remove the estimated cost of the 5508 feet of pipe.

The Commission also agrees with the State that the working capital allowance for property tax prepayments overstates the rate base. Kuparuk makes a midyear payment of the total taxes due the State for the current year. Thus, at midyear it advances the taxes due for the second half of the year, and collects the balance from shippers over the remainder of the year. During the first half of the year Kuparuk collects the taxes from its revenues in advance of the midyear payment, thereby accruing shipper prepayments in the first part of the year. Except for the first three months of Kuparuk's operations in the fourth quarter of 1984, the two prepayments offset one another and therefore no working allowance for tax payments should be permitted. Kuparuk should deduct the tax prepayments from its rate base.

Finally, the ID determined that the trending calculation should be performed before ADIT is credited. In Opinion No. 351 the Commission reached the opposite conclusion and ruled that ADIT should be deducted before the trending calculation is performed. For the reasons stated in Opinion No. 351, the ID will be reversed.

c. Nature of the return applied to the rate base

The ID followed the Initial Decision in ARCO Pipeline Company, and permitted Kuparuk to apply two separate rates of return to its rate base. The first return applied the nominal interest rate on debt to the debt component, and the second applied the real rate of return on equity to the equity component. The ID adopted this approach to assure that as equity dollars in the rate base increase due to trending, Kuparuk would have an opportunity to earn an equity return on those additional dollars. Staff excepts to this conclusion, arguing that the distinction between the two types of rate bases is artificial, and that all pipelines should apply a weighted cost of capital to the rate base even if in some cases the equity component may be increasing. The Commission will modify the ID based on its recent decisions in Opinion Nos. 351 and 351-A.

In Opinion No. 351, the Commission initially concluded that ARCO's return allowance should be derived solely by applying the weighted cost of capital to a single rate base amount. However, the Commission modified its conclusion on rehearing in Opinion No. 351-A. The Commission concluded that the capitalized deferred TOC earnings that are to be included in the rate base under Williams should earn an equity return. After positing this amount at $200, the Commission stated that the issue was whether the pipeline is entitled to earn an equity rate of return on the $200. The Commission concluded in Opinion No. 351-A that the $200 is the functional equivalent of an equity investment in the enterprise because it represents deferred equity earnings. Hence, the pipeline should adjust its capital structure by including the $200 as equity capital, and thereafter have an opportunity to earn an equity return on the deferred earnings. Since the issue is the same here as in Opinion No. 351-A, Kuparuk should use the same approach in this case. This means applying a weighted average cost of capital to a single rate base except for the adjustment for the equity return on the deferred TOC earning described here.

3. Treatment of AFUDC

Allowance for funds used during construction (AFUDC) represents the capitalized cost of debt and equity financing incurred during construction. The purpose of AFUDC is to compensate the utility for the costs of financing during construction. The issues on exceptions relate to the construction of the new 24-inch pipeline on the vertical support members that Kuparuk acquired from KPC and include: (1) the time frame for which AFUDC will be allowed, (2) whether ADIT deductions associated with interest payments during the construction phase should be deducted from Kuparuk's rate base, and (3) whether any AFUDC equity return should be compounded monthly or semiannually.

39 52 FERC at pp. 61,238-39.

40 ARCO Pipeline Company (ARCO), 43 FERC ¶ 63,033 (1988), aff'd in part and modified in part, 52 FERC ¶ 61,055 (Opinion No. 351). The term "ARCO" is used to distinguish the ID from the Commission's Opinion Nos. 351 and 351-A.

41 The Williams approach does permit the pipeline to modify its depreciation expense to reflect the increase in the equity rate base and to amortize that premium over the useful life of its assets. The increased equity amortization available to the pipeline under the Williams methodology is properly included in the pipeline's rate design and is recouped through its rates.
Regarding the first issue, the ID concluded that Kuparuk could accrue AFUDC commencing from the date construction expenditures were made. The ID concluded that the partners who created Kuparuk incurred the financing cost of construction funds even though Kuparuk itself was not formed at the time those expenditures were made. The ID concluded that the AFUDC actually recorded in Kuparuk’s accounts should be available to Kuparuk from the date construction expenditures were incurred, that detailed records were kept of those expenditures, that the construction costs and the carrying costs were credited to each partner’s capital contribution, and that they are entitled to AFUDC for expenditures that actually benefitted Kuparuk.

The Commission will affirm the ID. Opinion No. 154 provided that all new plants may be recorded at cost and that oil pipelines may add to their rate base as an AFUDC an amount computed using their overall cost of capital. The Commission’s intent was to put oil pipelines on the same basis as gas pipelines and electric utilities where AFUDC is recognized as a component of the construction cost. AFUDC is permitted for the period of construction. It may be capitalized from the date that construction costs are continually incurred on a planned progressive basis. The Commission’s regulations focus on the construction activity, not on the ownership of the facilities being constructed. The Commission therefore will permit AFUDC to be accrued commencing with the date construction costs are continuously incurred.

However, the Commission will reverse the ID’s determination that ADIT generated before operations began should not be deducted from the AFUDC accruing before Kuparuk began operation. The ID concluded that Order No. 144, which deals with normalization of the difference in timing of expenses for regulatory and tax purposes, does not require that ADIT be deducted from AFUDC before operations begin. However, the staff and State argue that the Commission’s decision in Opinion No. 319 requires the opposite result. In Opinion No. 319 the issue was whether the time value of benefits of ADIT generated during the period of construction before operations actually began should benefit the ratepayer or the stockholder. In addressing the import of Order No. 144, the Commission stated:

The Commission will reverse the Initial Decision and require that the time value of ADITs be awarded to Trunkline LNG’s ratepayers through reduction in AFUDC. As all parties agree, Commission policy concerning normalization of tax benefits clearly requires a reduction in rate base of Account No. 282 balances for operating companies. Section 2.67 of the regulations makes no distinction between deferred taxes arising as a result of construction as opposed to other utility plants. It is inconsistent and illogical to require the time value of construction related deferred taxes to be used to reduce return of an operating utility and not to require a similar reduction of return solely because the construction project was undertaken under a different corporate form or a company in a different stage of its existence. To hold otherwise would elevate form over substance and permit pipelines to circumvent Commission policy though the use of an incorporation device.

The Commission reverses the ID in the instant case for the reasons stated in Opinion No. 319. In this instance nothing in the Williams methodology, which deals primarily with trending, requires that oil pipelines receive different regulatory treatment than gas pipelines on other rate base items such as AFUDC.

The final AFUDC issue is whether to use monthly or semiannual compounding of the AFUDC equity balance. The ID concluded that the Commission’s regulations permit only semiannual compounding. Kuparuk excepts, arguing that the regulations are permissive and do not require semiannual compounding.

In Opinion No. 319, the Commission permitted Trunkline LNG to amend its books to use semiannual compounding rather than a purely annual statement of the return on AFUDC. In doing so, the Commission stated that the recognition of expenses or revenues for ratemaking and income tax purposes, Order No. 144, FERC Statutes and Regulations, Regulations Preambles, 1977-1981, ¶ 30,254, at p. 31,556 (1981).

regulations provide for semiannual compounding, and permitted Trunkline LNG to conform on the grounds that it had not clearly elected the annual accounting method. As such, the six-month option is appropriately available to Kuparuk in the instant case. As already stated, the Commission's intent in Williams was to put oil pipelines on the same basis as gas and electric utility companies with respect to AFUDC. Commission Order No. 561 permits compounding no more frequently than semiannually, which was reaffirmed in Order No. 561-A. Kuparuk has not presented any reason that these requirements should be modified. The Commission will affirm the ID.

D. Treatment of Nonjurisdictional Property

Before Kuparuk began operation of its 24-inch pipeline, KPC sold its 16-inch pipeline to the Oliktok Pipeline Company (Oliktok) for use as a natural gas pipeline. Oliktok rented space on the vertical support mechanisms and the use of the central processing facilities from Kuparuk for an annual rental of $432,814 during the time the record was open. Since Oliktok is an intrastate gas pipeline rather than an oil pipeline, the determination of the reasonableness of its rates is not subject to the Commission's jurisdiction under the ICA and the NGA. This raises the issue of the amount, if any, of this nonjurisdictional revenue that should be credited to Kuparuk's cost of service, and if so, the method that should be used. The ID adopted staff's recommendation that an amount equal to 32 percent of all fixed plant costs (including a return on capital, depreciation, and deductions for dismantling, removal, and restoration) should be deducted from Kuparuk's cost of service, and its rates reduced accordingly. The 32-percent figure is based on a more limited 32-percent cost allocation agreed to by Kuparuk and Oliktok in their lease agreement for the vertical support mechanisms.

Kuparuk excepts, arguing that the ID is confiscatory and deprives Kuparuk of an opportunity to earn an adequate return on its investment. It asserts that Oliktok would not be in business if it had not been able to purchase the 16-inch pipeline and lease space on the vertical support mechanisms, that Oliktok cannot afford to pay the full "rental" that the State and staff would impute to it, and that in fact shipments through Oliktok recently ceased, leading it to file with the Alaska Public Service Commission a "Petition for Discontinuance" of its services as a pipeline. Kuparuk further argues that Oliktok's operations are marginal, and therefore incidental to Kuparuk's use of the vertical support mechanisms and other common facilities. Kuparuk also argues that assets that are used and useful in a carrier's service are properly included in the carrier's rate base, and any incidental revenues generated by those assets are properly included in its gross revenues without any reduction of its rate base.

Kuparuk acknowledges that the 32-percent figure adopted by the ID was part of a negotiated formula for the rent of the vertical support mechanisms by Oliktok. It argues, however, that the parties never contemplated that Oliktok's payment would equal the full 32 percent of the costs of service that the staff and the State would attribute to the Kuparuk vertical support mechanisms. It asserts that Oliktok's operations cannot support such a rental, and that the issue is whether Kuparuk should be able to accept, without fear of penalty, a rental Oliktok can afford, or face receiving no rental since Oliktok would never enter into a transaction that it could not afford. Kuparuk further asserts that Oliktok pays an arm's-length rental reflecting the maximum rental that Kuparuk could receive for the 16-inch pipeline. It claims that this is demonstrated by the fact that no other party was willing to purchase the 16-inch pipe. Kuparuk concludes that since Oliktok can realistically cover only a small part of the common facility costs, that to require payment of the full 32 percent deprives Kuparuk of the opportunity to earn a return on those assets that are attributed to the joint usage. This is because Oliktok could never reimburse Kuparuk, through Oliktok's rent, for the portion of the rate of return that would be deducted from Kuparuk's cost of service if a full 32 percent of all capital costs attributed to the common facilities is deducted from Kuparuk's rate base.

The State and staff argue that Kuparuk has not established that arm's-length negotiations were involved in setting the annual rental Oliktok actually pays to Kuparuk, and they claim that the rental is inadequate. The State asserts that because Kuparuk and Oliktok are

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50 Accounting Regulations to Provide for the Determination of AFUDC, Order No. 561, 57 FPC at 612 (1977).
52 Kuparuk Brief On Exceptions at p. 60. Kuparuk also filed a motion to receive into evidence a copy of that petition and Oliktok's related request to the Alaska Department of Natural Resources for approval under the right-of-way lease to discontinue service. The motion will be granted since these are public documents and relevant to the issue here. The ID's ruling on this point is reversed.
affiliated entities, they have the burden of establishing that the rental terms reflect fair market value. Moreover, they argue that the incidental use argument advanced by Kuparuk has no merit, that the historical ICC valuation methodology relied on by Kuparuk has been thoroughly discredited, and that the joint use of jurisdictional property requires a proration of both the investment and the related expenses. Both staff and the State assert that the vertical support mechanisms were clearly designed for more than one pipeline, and that this fact defeats Kuparuk's argument that the 16-inch pipeline is an incidental use of those facilities. This is the basis for the State's argument that since there are two pipelines, each should bear 50 percent of the costs. Otherwise, the State argues, Kuparuk could chose to use the 16-inch pipeline for oil and the 24-inch pipeline for gas, and reallocate the costs of the service accordingly. 53

The Commission will modify this portion of the ID. The parties do not disagree that the common facilities in question were engineered for more than one pipeline, and agree that this action was prudent given the potential requirements of KPC's customers at the time the facilities were built. Moreover, the State does not contest that the incremental costs of additional capacity to handle more than one pipeline are relatively low, in this case $1.4 million dollars would be necessary to carry a 16-inch as well as a 24-inch pipeline, and that the balance of the investment in the common facilities would be necessary simply to carry the 24-inch pipeline. No party argues that this additional expenditure was imprudent, that it is not used-or-useful, or that it is not in the public interest. 54

The Commission concludes that Kuparuk has established that the entire cost of the common facilities is prudent, that it can be placed in its oil pipeline rate base, and that Kuparuk is entitled to a reasonable opportunity to earn a return on that investment. The issue is then how Kuparuk's rate payers should be compensated for the efficiencies that result from any joint use of that rate base, i.e., by deducting a portion of the rate base or by the crediting of any third party revenue to Kuparuk's cost of service. The Commission agrees with Kuparuk that under the circumstances involved in this case the potential loss of return from renting to a marginal tenant creates incentives to deny joint use of a potential landlord's assets. This is because the reduction in Kuparuk's rate base is certain, and the risk that it will fail to obtain adequate revenue from the tenant is high.

In this instance crediting of revenues to jurisdictional costs protects the ratepayers without creating disincentives to develop nonjurisdiction sources of revenues. 55 This conclusion moots the arguments of the parties on what cost ratio should be allocated to each service, except as those ratios may be evidence of the reasonableness of the rent Kuparuk charges to its affiliated company. Staff and the State are correct in asserting that Kuparuk must establish that the rental is a fair one. In this instance the rental formula Kuparuk used is based on straight line depreciation without any cost of capital factor or other additional costs that are related to fixed plant, such as the reserve for Demolition, Restoration, and Removal (DR&R). The State and staff argue that this formula is too limited, particularly if compared to Kuparuk's transaction with the Prudhoe Bay Unit (PBU), in which Kuparuk permitted PBU to use the vertical support mechanisms that cross the Kuparuk River. The total distance in the PBU transaction is 10,387 feet, with compensation of $575,000 each year for the placement of the pipeline, and $40,000 for the placement of a power cable. The annual rental for the Oliktok system was $432,814 for joint usage of some 27 system miles, or 13 times the length of the PBU transaction. This presents an issue of fairness if it is assumed that PBU and Oliktok are capable of paying

53 The State proposes in the alternative that the proper allocation between the two systems should be 60 percent to Kuparuk's oil pipeline and 40 percent to Oliktok's gas pipeline, since this represents the ratio of the space actually used by the two pipelines, rather than the ratio of the space used by each pipeline to the total space available (including vacant space). The State concludes that the 32-percent figure essentially allocates all the unused space on the vertical support mechanisms to the jurisdictional users.

54 Kuparuk argues that the maximum capital value that can possibly be charged to Oliktok by making a deduction from the rate base is the incremental investment necessary to carry more than one pipeline.

55 A historical example involves the sales of liquefiable products derived from gas processing. If liquids or liquefiables derived from gas processing. If liquids or

¶ 61,122
the same amount of rent per linear foot right-of-way that each shares with Kuparuk.

In this regard, Kuparuk argues that because the Partnership Agreement requires at least a 70-percent agreement of the owning partners in the case of self-dealing, Oliktok could not have obtained its current rent without the approval of disinterested parties, and therefore an arm's-length deal is involved. In reply, the State argues that all the partners have a vested interest in keeping third party revenues as low as possible to maximize Kuparuk's cost of service, thereby reducing the wellhead price of the petroleum and the State's royalties. The State also argues that it ignores the fact that the partner controlling the affiliates, ARCO, is the managing partner of Kuparuk.

The Commission concludes that the State's arguments are refuted by other evidence in the record. For example, the fact that Kuparuk's cost of service might be reduced by nonjurisdictional revenues did not deter Kuparuk from demanding a rent for PBU that was higher in absolute dollar terms ($615,000 total) than it charged Oliktok ($432,814). This higher rental would have the same effect of reducing Kuparuk's cost of service, and thereby increasing the royalties due the State. 56 Kuparuk's willingness to charge a full service rental to another oil pipeline defeats the State's argument that Oliktok's rent has been set low simply to limit the amount of revenues that would otherwise be credited to Kuparuk's service. In fact, it appears at this point that Oliktok is abandoning its service and will discontinue operations which, if true, would simply mean that there is no incremental revenue to be derived from the joint usage contemplated by the parties.

The conclusion in the instant case is also supported by the fact that Kuparuk is not owned wholly by ARCO affiliates. As previously noted, at the time its rates were filed Kuparuk was owned 57 percent by KPC, an ARCO affiliate, 28 percent by BP Pipeline, 10 percent by Sohio Pipeline, and 5 percent by Unocal Kuparuk Pipeline Company. Other strong commercial parties are involved and the State's arguments assume that these parties would be willing to subsidize their competitor's affiliate. This is inconsistent with the State's own evidence that indicates that extensive bargaining occurred before Kuparuk was created. Thus, even if ARCO is the managing partner, in matters involving self-dealing, it has a fiduciary obligation to disclose the terms of the transaction, to obtain ratification from a majority of the disinterested partners, and to deal in good faith. There is no assertion in the instant case that any of these duties were breached.

The fact that ARCO's competitors accepted Oliktok's rental is an important factor in the conclusion reached here. The conclusion is limited to this case since if Kuparuk were owned only by ARCO and the transaction in question were not subject to the scrutiny of third-party competitors, the Commission would be less likely to conclude that Kuparuk had met its burden to establish that the rental in question was the most that Oliktok could reasonably be expected to pay. Therefore, under the facts established in this case, the Commission will accept the existing rental formula between Kuparuk and Oliktok as reflecting a fair market rent. Since the revenue crediting method will be used in this proceeding, Kuparuk will be required to credit 100 percent of Oliktok's rental to Kuparuk's jurisdictional costs.

E. Rate of Return, Including Cost of Capital

The ID addressed four issues involving rate of return: (1) the debt-equity ratio; (2) the cost of debt, including whether that cost should include a surety premium; (3) the cost of equity; and (4) the weighted cost of capital. The ID concluded that Kuparuk should have: (1) an imputed debt-equity ratio of 50 percent debt and 50 percent equity; (2) a debt-cost of 10.51 percent; (3) a surety premium; (4) a pretax nominal equity cost of 12.90 percent; and (5) a weighted cost of capital of 10.5 percent using real cost of equity of 8.90 percent. Exceptions were filed to all of these conclusions, many of which turn on the parties' differing perceptions of Kuparuk's business risk.

1. Kuparuk's debt-equity ratio

The ID adopted an imputed capital structure of 50 percent debt and 50 percent equity for Kuparuk rather than using Kuparuk's stipulated capital structure of 30 percent debt and 70 percent equity. The Commission will modify the ID's imputed capital structure to reflect the weighted capital structure of Kuparuk's owning partners for the years 1984 to 1986, which is approximately 42.2 percent debt and 57.8 percent equity. For the reasons discussed below, this latter capital structure is more commensurate with the capital structure of Kuparuk's owning partners in the years to which this order will apply.

56 If the PBU is shipping oil in a strong market, it has the option of building its own facilities. Therefore Kuparuk can bargain for a rental that is based on an amount just under the replacement cost of facilities the two parties share. If Oliktok's gas market is larger, then it reasonably would be able to pay only to purchase the 16-inch pipeline (normally at a sum somewhat greater than salvage value) and pay its own operating costs plus a small rental.
The ID first evaluated earlier Commission decisions on the use of imputed capital structures, including the Arkla case, which supports the use of actual rather than the hypothetical structures in natural gas pipeline rate cases, and Opinion No. 154-B, which holds that a pipeline issuing debt to its parent company or relying on the parent's guarantee should use the parent's capital structure. However, the ID also concluded that Opinion No. 154-B permits participants to urge other capital structures in specific proceedings, and determined that the use of the debt-equity ratio of Kuparuk's owning partners is inappropriate because oil companies have unusually thick equity ratios.

The ID also analyzed Kuparuk's business risk in determining its capital structure. In the ID, the ALJ concluded that Kuparuk's risks are substantially different than those of its owning partners, that use of the capital structure of the owning partners was inappropriate, and that therefore an imputed capital structure should be adopted. The imputed debt-equity ratio adopted in the ID, 50 percent debt and 50 percent equity, is similar to the ratio recommended by staff, and reflects the debt-equity ratio of other oil pipelines involved solely in the transportation of crude petroleum. The ID rejected as unnecessarily complex and theoretical the State's position that because Kuparuk is a low risk pipeline, it could be financed on a project-financed basis using a capital structure of 70 percent long term debt and 30 percent equity. In doing so, the ID explicitly rejected the State's assertion that Kuparuk's risks are equivalent to those of an electric utility, and that such an analogy should be used either for determining Kuparuk's capital structure or its equity cost of capital. The ID also concluded that because it is a transportation monopoly, Kuparuk faces substantially less risk than the average lower-48 oil pipeline, and less risk than many lower-48 interstate gas pipelines.

Kuparuk excepts, arguing that the ID did not properly apply Opinion No. 154-B. It argues that Opinion No. 154-B mandates the use of the parent company's capital structure if the appropriateness of a capital structure is questioned, and held that the parent's capital structure should be used unless that structure is totally unreasonable. It further argues that oil pipelines are much more risky than any type of natural gas pipeline, and that to the extent the ID and staff use any sample of natural gas pipelines as an indicia of risk, the comparison is improper. Kuparuk also argues that the cases relied on by the ID involved extreme equity ratios, both in excess of 90 percent, and therefore do not apply to Kuparuk. Kuparuk asserts that its stipulated capital structure of 30 percent debt and 70 percent equity is within the range of the equity ratios discussed in staff testimony, 30 percent to 72 percent, and therefore is reasonable. Kuparuk also argues that its operating revenues will not carry an imputed capital structure at the rate levels suggested by the State and staff.

Finally, Kuparuk argues at length that it faces substantial market risk, even if it is considered a transportation monopoly. This is because Kuparuk's oil is more costly to produce and to market than oil produced in the lower-48 states. Kuparuk asserts that the precipitous drop in oil prices between 1981, when its planning studies were produced, and 1985 means that there is some realistic danger that the oil fields served by Kuparuk may be shut in. This would in turn place Kuparuk's investment at risk. In support of this position Kuparuk cites studies concluding that in 1986 there was some risk that if oil prices were to drop much below a wellhead price $15.00 per barrel in lower-48 production areas, further development of the Kuparuk field would be deferred, and that some of the smaller fields would not be developed at all. Kuparuk concludes that the ID's analysis of its capital now serving. Transportation competition addresses the share that will be captured by the different firms competing in the market involved.

However, the First Boston Study dated April 15, 1986, that concludes that the total cost per barrel for Prudhoe Bay Crude are only slightly in excess of $5.00 per barrel, that the high costs of existing Alaskan production are incorrect, and that many lower-48 wells would be shut in before existing Alaskan production. Alaska Ex. No. 14-20 at p. 4. Kuparuk oil is viewed as somewhat more costly. Id. at p. 5.

See the two studies for the State of Alaska cited in Ex. Nos. KTC-3-1, pp. 6-7, and 8; and KTC-3-2 at pp. 1, 5. Kuparuk asserts that the State's position that because Kuparuk is a low risk pipeline, it could be financed on a project-financed basis using a capital structure of 70 percent long term debt and 30 percent equity, is similar to the ratio recommended by staff, and reflects the debt-equity ratio of other oil pipelines involved solely in the transportation of crude petroleum. The ID rejected as unnecessarily complex and theoretical the State's position that because Kuparuk is a low risk pipeline, it could be financed on a project-financed basis using a capital structure of 70 percent long term debt and 30 percent equity. In doing so, the ID explicitly rejected the State's assertion that Kuparuk's risks are equivalent to those of an electric utility, and that such an analogy should be used either for determining Kuparuk's capital structure or its equity cost of capital. The ID also concluded that because it is a transportation monopoly, Kuparuk faces substantially less risk than the average lower-48 oil pipeline, and less risk than many lower-48 interstate gas pipelines.

57 Arkansas Louisiana Gas Company, 31 FERC ¶ 61,318, at p. 61,276 (1985) (Arkla).
58 31 FERC ¶ 61,377. at p. 61,836 (footnotes omitted).
59 See Prepared Testimony of George M. Shriver, III Ex. No. FERC 20-0 (GMS-12) at pp. 4-5. Staff argued that investors would not require a greater debt-equity ratio than that of the average public utility and then adopted a capital structure of 49.56 percent debt and 50.44 equity based on the 1984 year end average of the capital structure of seven oil pipelines that, like Kuparuk, transport only crude petroleum.
60 The market risk involves whether there will be a demand for Kuparuk's, or any other pipeline's, transportation services in the market that Kuparuk is serving. Transportation competition addresses the share that will be captured by the different firms competing in the market involved.
structure does not adequately address the risk that its wells might be shut in, and suffers from the same deficiency in its determination of Kuparuk's cost of capital.

In reply, staff asserts that all seven oil pipelines in its sample only transport crude oil, and that since four are TAPS pipelines, they are analogous to Kuparuk for the purpose of determining its capital structure. Staff asserts that the only way to arrive at a typical debt-equity ratio is to use the average of oil pipelines facing similar risks, and that its analysis does this. Staff also argues that Kuparuk's expert witness incorrectly estimated the impact on Kuparuk's operating margins of a more leveraged capital structure. Staff concludes that Kuparuk's risks are actually less that those faced in 1985 by a group of nine lower-48 interstate gas pipelines, and that this perception of low risk should be applied to Kuparuk's cost of capital.63

The State argues that the ID correctly adopted a hypothetical capital structure and accepts the level adopted. It further argues that Arkla, supra, held that competition in the marketing of natural gas means that gas pipelines have increased incentives to assure that they adopt cost-efficient capital structures and to effectively mirror market risks. It asserts that since Kuparuk faces no competition, this incentive is lacking. The State concludes that Kuparuk's capital structure is contrived and was designed solely to meet the regulatory requirements contained in Opinion No. 154-B.64 The State emphasizes that the internal planning documents of the owning partners indicate that Kuparuk was considered a low risk investment, that the modest real and nominal returns would be justified,65 and that the owners' perception of low risk applies equally well to the determination of Kuparuk's cost of capital as well as to its capital structure. For example, the State notes that the Kuparuk field increased production in the face of falling oil prices, and that Kuparuk's owners stated that throughput would be relatively insensitive to changes in oil prices.

(Footnote Continued)

that these assumptions mean that at $16.00 per barrel Kuparuk would not recover its full costs. The second study in KTC-3-2, however, assumes that the more probable price will be $16.00 per barrel at the wellhead for Kuparuk oil. The spread between this price and the production price discussed in the previous footnote reflects the cost of transportation and distribution to west coast markets.

63 See Schriver, supra, at pp. 16-18, and Ex. 1 thereto, at pp. 1-4.
64 See Alaska Ex. Nos. 14-10 at p. 3; 14-12 at p. 1; and 14-20 at pp. 1, 2, 4.
65 See Alaska Ex. Nos. 14-9 at pp. 8-9; 14-11 at p. 2; and 14-12 at p. 2.

The Commission agrees that the ID's conclusions on Kuparuk's capital structure should be modified. First, the Commission does not believe that the stipulated capital structure of 30 percent debt and 70 percent equity is so unreasonable as to warrant an imputed capital structure for Kuparuk. This represented the approximate weighted capital structure of the owning partners in 1984, which, as stated above, will be adjusted for a more representative weighted capital structure that obtained in 1985 and 1986. Moreover, to the extent the ID is based on the evaluation of Kuparuk's risk, the ID's analysis did not adequately address the issue of Kuparuk's market risk and depends heavily on the assumption that the TAPS oil pipelines contained in staff's sample, and Kuparuk, which face no transportation competition, have similar risks.66 The several consulting reports available in 1986 support both the conclusion that oil prices would not drop sufficiently far to shut in Kuparuk's wells, and that there was sufficient uncertainty in 1985 and 1986 concerning long-term trends in oil prices that this might still occur.

The Commission concludes that Kuparuk faces sufficient market risks unrelated to transportation competition, and that the ID's analysis does not overcome the strong preference in Opinion No. 154-B for the use of a parent company's capital structure if the parent guarantees the oil pipeline's external debt.67 There are also significant disputes in the record concerning: (1) the proper level of imputed interest rates for any imputed long term, more highly leveraged debt structure, (2) whether the Milne Point revenues will be available to support Kuparuk,68 (3) Kuparuk's future volumes, and (4) whether the owning partners ever intended to, or would be able to, obtain the long-term debt financing that is assumed in the State's, staff's, and the ID's imputed capital structures. Given the conflicting evidence, the Commission will follow the preference stated in Williams and use the parents' weighted cost of capital to establish Kuparuk's

66 In addition to their other arguments, Kuparuk and the State advance alternative arguments based on their respective financial models. The Commission agrees with the ID's reasoning that these efforts are inadequate.

67 For a similar conclusion see Opinion No. 351, supra, at pp. 61,242-43.
68 For example, the ID states in n.1 that to the ALJ's knowledge, production from the Milne Point field has been indefinitely suspended, and production from the West Sak Pilot Project has been terminated entirely. 45 FERC at p. 65,041.
capital structure. This result is consistent with the Commission's recent decision in Opinion No. 351, which also adopted the parent company's debt-equity ratio for the year in which the rates would first apply.69

However, as noted above, the Commission will not adopt the 1984 weighted capital structure of Kuparuk's owning partners, but will adopt the average of their weighted capital structure for the years 1985 and 1986. This is approximately 42.20 percent debt and 57.80 percent equity70 rather than the 30 percent debt and 70-percent equity weighted structure that existed in 1984. There are several reasons for selecting this period. Kuparuk was in operation for only the last three months of 1984, and the Commission is setting rates for the calendar years 1985-87 in addition to the last three months of calendar year 1984. The 1985 and 1986 capital structures of the owning partners were significantly different from those in 1984, which is an unrepresentative year. Moreover, interest rates also dropped sharply after 1984, and the weightings of the composite cost of capital should reflect the two full calendar years that are used here.

2. The cost of debt

When the record closed, Kuparuk was financing its debt on the basis of short term 90-day commercial paper, rolling the paper over though an affiliated financing entity. The ID concluded that the proper interest rate for Kuparuk's debt was 10.51 percent, assuming the 30 percent debt and 70-percent equity capital structure adopted by the ID. The ID derived the debt rate by weighting the rate of the first 30 percent of debt at the actual rate of Kuparuk's debt for the period ended December 31, 1984, using staff's figure of 9.26 percent, and estimated the remaining 20 percent of the debt rate using a 10-year rate of 12.38 percent. The long-term rate was based on staff's estimate of the cost of long-term debt for the additional 20 percent of imputed debt contained in the ID's capital structure. The State excepts, arguing that the Commission should adopt its estimated debt rates, but adjust them for the lower risk that is reflected in the capital structure actually adopted in the ID. Kuparuk argues that the resulting debt rate should be higher than that recommended by the State since the risk premium used by the State is understated.

The Commission will modify the debt rate adopted by the ID. First, the ID contains no reasoned basis for developing a weighted debt rate based on Kuparuk's actual short-term debt for the first 30 percent of the debt structure, an imputed long-term rate for the second 20 percent. Adoption of a long-term rate that matches the long-term nature of the capital investment involved here would seem appropriate.71 It would also seem appropriate to use a purely short-term rate that would reflect the decision by Kuparuk's management to reduce costs through the use of short-term paper, at least until the regulatory criteria applicable to Kuparuk has been more clearly defined. However, the hybrid rate selected by the ID is supported by neither of these traditional conventions.

The Commission concludes that there is no reason to depart from the use of the actual embedded debt since the rates here are to be set for only slightly more than three years. This is particularly true since this is the method actually used by Kuparuk's management.72 The result here is consistent with the earlier determination in Williams to use the embedded debt rate if the parents' capital structure is the basis for the subsidy's capital structure. To assure consistency with the weightings selected for the capital structure, the rate of debt will be based on the embedded cost for the year 1985, which equals 7.99 percent.73 As is demonstrated by Kuparuk's own filings, interest rates were substantially lower in 1986 than in 1985.

The ID also denied Kuparuk's owning partners a surety premium, an additional financing cost that Kuparuk argued should be added to a subsidiary's financing costs to reflect the higher rate that the subsidiary would have paid if its parents had not guaranteed its financing. The ID did so on the grounds that the close identity of the owners and the shippers means that Kuparuk's partners, as shippers, have already received the benefit of this surety premium in the form of lower interest rates. Thus, the lower interest costs that come from using the parent's guarantee. The ID further concludes that since Kuparuk is a secondary investment in the owning partners' overall investment in the Kuparuk oil field, such financing costs were at best a secondary factor in any investment decisions, and that there is no credible evidence that Kuparuk's interest rates would have been any higher given the close affiliation between Kuparuk and its parents. Kuparuk excepts, arguing that Opinion No. 154 clearly authorizes a surety premium to points greater than the commercial paper rate Kuparuk used in the same period.

69 See Opinion No. 351, supra, at pp. 61,242-43.
70 See Ex. No. ALK-14-30.
71 For the projected periods the cost of capital calculations in Kuparuk's exhibit B-11 (ALD-11) use a long-term rate that is approximately two percentage points greater than the commercial paper rate Kuparuk used in the same period.
73 See Ex. KTC-7-1 (CHC-1). p. 4.
compensate the parent for the risk of the guarantee, and that competent testimony establishes that the owning partners' guarantees were required for Kuparuk to issue commercial paper at a favorable rate.

Opinion No. 154-B provides that a surety premium may be appropriate when the parent guarantees the subsidiary's financing, but does not mandate such a premium. In arguing that Opinion No. 154 contemplated such a premium as the norm, Kuparuk relies on the rate of return portion of Opinion No. 154, which was rejected by the Court of Appeals. As staff correctly points out, there is no demonstration that Kuparuk's risk is less than that of the average for the calendar years 1985 and 1986, the two years most fully covered by the record. To correct this error the Commission will base its conclusions on the average for the calendar years 1985 and 1986, the two years most fully covered by the record.

Second, as was discussed above, the ID understated Kuparuk's business risk, and therefore a higher equity cost of capital is warranted. However, the Commission agrees with the ID that Kuparuk's risk is less than that of the average lower-48 oil pipeline since such pipelines often face extensive transportation and market risk. For example, in a recent decision the Commission permitted ARCO Pipe Line Company, a lower forty-eight pipeline facing substantial transportation and market competition, a 1986 nominal equity cost of 12.90 percent.

The Commission agrees that the ID's analysis of Kuparuk's cost of equity was arbitrary and will modify it. The fault in the ID's conclusion lies in its determination of a range of reasonableness, which includes the use of data and calculations for periods that are outside the rates at issue in this case. For example, the ID uses the average of 10-year treasury bonds between October 1984, and June 1988, plus 2.5 percent, as the lower bound of its zone of reasonableness, and the 1985 cost of equity calculations by staff as the upper bound. Interest rates, and the overall cost of capital, dropped substantially during these four years, and the upper and lower bounds in the ID are not derived from the same timeframe. To correct this error the Commission will base its conclusions on the average for the calendar years 1985 and 1986, the two years most fully covered by the record.

74 Williams, Opinion No. 154-B, 31 FERC at p. 61,837 (n.51).

75 See Alaska Ex. Nos. 14-4 at p. 17; 14-6 at pp. 2-3; and 14-9 at p. 5.
capital of 14.1 percent. If adjusted for the higher capital costs that existed in 1985, ARCO's nominal equity cost of capital would have been 15.1 percent, and a simple two year average of 14.6 percent. Kuparuk faces no transportation competition and therefore has a lower overall business risk than ARCO. Therefore, Kuparuk's nominal equity rate of return should not exceed an amount equal to the two year average of ARCO's nominal cost of capital, and should be substantially less. The equity cost-of-capital advanced by Kuparuk is far in excess of this average.

The Commission also agrees with staff that Kuparuk faces less risk than the nine gas pipelines used in staff's primary comparison sample. While staff does not analyze the relative risk in specific terms, both staff and the ID are correct that since the mid-1980's gas pipelines have faced increasing competition in transportation and marketing of natural gas. The staff performed a conventional discounted cash flow analysis, which despite its faults, is the best analysis in the record. This analysis concluded that the nine gas pipelines in staff's primary comparison sample had a forward looking nominal cost of capital in 1985 of 14.3 percent, which staff then reduced to 13.73 percent on the grounds that Kuparuk faced less risk. This would equate to 13.3 percent in 1986, and result in a two year nominal average of 13.8 percent.

The Commission believes that staff's reduction was too great because gas pipelines had only just begin to operate in an open-access environment during the locked period covered by this order. Therefore, the Commission will use a somewhat lower adjustment and grant Kuparuk a 1985 nominal cost of equity of 14.0 percent, a 1986 nominal equity cost of capital of 13.0 percent, and a nominal two year average equity cost of capital of 13.5 percent. Since no party excepted from the use of the 4 percent inflation adjustment factor, Kuparuk's real cost of equity capital for the 1985-86 two year average is 9.5 percent. Using a 7.99 percent cost of debt, a 9.5 percent real cost of equity, and a 42.2 percent debt and 52.80 percent equity capital structure, Kuparuk's cost of capital through the calendar year 1987 is 8.86 percent, rather than the 10.50 percent adopted by the ID.

Finally, the Commission will follow Opinion No. 351-A, supra, and apply a nominal rate of equity to the equity portion of the AFUDC rate. As in Opinion No. 351-A, it is difficult to determine the rate to be applied for the years prior to those actually addressed by this order, and as in Opinion No. 351-A, the Commission will extend the methodology adopted in this order to the earlier years. Using Kuparuk's estimates for the difference in the equity cost of capital for the preceding years, the result is a 15.9-percent nominal rate for 1984, 14.69 percent rate for 1983, and a 19.95-percent rate for the years 1982 and 1981. The ID is modified accordingly.

F. Depreciation

The ID concluded that Kuparuk should use straight line depreciation over its stipulated 27 year useful life. The ID reasoned that the straight line method properly accounts for uncertainties involved in the anticipated rate of Kuparuk's throughput and assures that future shippers do not obtain lower depreciation costs at the expense of current shippers. The ID rejected the arguments of the State and Kuparuk that some form of front loaded depreciation should be used in the instant case. Kuparuk and the State except.

Kuparuk argues that the ID should be reversed because all parties using Kuparuk's service support some type of front loaded depreciation, and that only staff, which has no economic interest in the proceeding, objects. Kuparuk states that while it supported the use of the sum-of-the digits method of depreciation, it has no objection to the use of the unit-of-throughput (UOT) method urged by the State. Kuparuk asserts that Commission precedent holds that UOT is appropriate where both the production rate and total reserves can be projected with some reasonable confidence, and it claims that standard is met here. Finally, Kuparuk argues that the UOT method is consistent with the Commission's approval of such a method in the TAPS case, and will encourage further development of Alaskan oil. The State also argues that the UOT method will result in lower depreciation charges in later years and will encourage the production of marginal fields.

Staff argues against adoption of a UOT method since Kuparuk's future throughput is uncertain, and is likely to increase in the latter part of the 1980's. Staff also asserts that the probability of greatly increased production

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77 See ARCO, supra, 52 FERC at pp. 61,223-24. ARCO Pipeline is owned by ARCO, which has the largest percentage ownership in Kuparuk.

78 Kuparuk's own testimony states that the difference in both the nominal and real cost of equity capital between 1985 and 1986 was approximately one percent. See KTC's Ex. ALK-11, Panel B. All further adjustments between 1985 and 1986 will reflect this differential.

79 The source of the adjustments is KTC's Ex. ALK-11, Panel B.

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means that volumes will remain high over the life of the Kuparuk system, and that present problems with the production of new sources adjacent to Kuparuk are evidence that Kuparuk's rates are too high. Staff further argues that the sensitivity of the UOT method to changes in production requires that greater information be available before any commitment is made to use that method.

The Commission concludes that the facts of this proceeding support use of the UOT method of depreciation here, and will reverse the ID. A Stipulation, executed by most of the parties in a related proceeding and introduced in this proceeding, addresses both Kuparuk's useful life and the estimated percentage of the total throughput that will occur in each year. The Stipulation reflects the projected output of the limited fields served by Kuparuk, since all throughput will cease when those fields are no longer producing. Since Kuparuk serves only a limited number of fields, and as of the date of the ID only one of these was actually in production, the stipulated throughput is tied to specific ascertainable present and future reserves and the productive life of that field. Thus, while in the instant case the stipulation is tied to the throughput of the pipeline rather than the predicted output of the field, for all practical purposes the two are identical in this proceeding.

The stipulated throughput therefore meets the test of the first Tennessee case, that the reserves of the field be known and ascertainable, and is analogous to the use of the unit of production (UOP) method to depreciate specific isolated reserves in the second Tennessee case. While staff's witness Sullivan projects higher oil prices and greater throughput, in the near term staff's conclusions rely on studies that are similar to those prepared for the State of Alaska. The State's studies project sharply declining projected output levels for all North Slope production after 1987, and the throughput volumes in the Stipulation begin to decline in 1991. In the second Tennessee case, the Commission rejected staff's assertions of expanded production for offshore gas fields on the grounds these were speculative, and will do so here. Finally, the result is consistent with the Commission's prior action in the TAPS proceeding, which accepted a UOT methodology. In TAPS the Commission specifically noted that the UOT method would encourage future production, as is urged by the State and Kuparuk in this proceeding.

The Commission notes that the bulk of the early depreciation charges will be borne by shippers who are also owners of Kuparuk. Any danger that depreciation may be too low in later years can be mitigated by revised rate filings. Since, as staff states, the depreciation charges are similar in the first three full years under either straight line or the UOT method, the Commission prefers the method that will encourage additional oil production. The Commission notes this conclusion applies only to Kuparuk at this time because it serves a single field with a finite life, and is therefore analogous to the offshore gas fields involved in Tennessee, supra, and to the Commission's earlier decision in TAPS. The result here is not intended to apply to the oil pipeline industry as a whole. The ID is modified to permit the use of UOT depreciation method contained in the parties' stipulation.

F. Allowance for Demolition, Removal, and Restoration

The ID concluded that Kuparuk should be permitted to include in its rates a charge for the anticipated costs of demolition, removal, and restoration (DR&R). Kuparuk leases its right-of-way from the State, and DR&R costs are those that may be incurred for restoring the right-of-way to its natural condition upon the expiration of the lease. The stipulated cost of DR&R is $11 million in 1986 dollars. The ID found that these anticipated costs were sufficiently certain that they are not mere contingency costs, and are therefore properly reimbursed by Kuparuk's ratepayers.

The ID also concluded that the DR&R costs should be amortized on a level payment basis over Kuparuk's 27 year stipulated economic life. In doing so the ID rejected arguments by the State and Kuparuk that the DR&R costs should be front-loaded, thereby placing more of these costs in the earlier years of operation. The ID also required that Kuparuk establish an external fund to hold the DR&R funds, and denied Kuparuk any inflation or cost increases over the years the DR&R fund would be collected. The ID concluded that interest on the

81 See Ex. No. 1-B. The proceeding was before the Alaska Public Utilities Commission (APUC) in a 1986 rate case (Docket No. P-85-2) and was executed by Kuparuk, the State, the APUC, the Commission staff, and the Arctic Slope Regional Commission.
82 Tennessee Gas Pipeline Company, 56 FPC 120 at 128 (1976).
84 Staff Ex. No. 22-1, DRI Forecast Summary.
86 See Prepared Rebuttal Testimony of John H. Lichtblau, Ex. KTC 6-3.
87 Tennessee, 25 FERC at pp. 61,096-97.
88 See 33 FERC at p. 61,139.
DR&R fund would be sufficient to offset the rate of inflation and assure that sufficient funds accrued to cover all future costs that Kuparuk would incur for DR&R. Staff, Kuparuk, and the State except.

Staff argues that the ID improperly concluded that Kuparuk is likely to incur costs for DR&R. Staff further argues that the lease agreement permits the State to forgo collection of the DR&R funds, and therefore these funds are contingencies that should not be included in Kuparuk's costs. Staff also asserts that the ID erred in assuming that interest on any external fund would offset future costs in the DR&R. Staff argues that cost factors may actually decrease as well as increase over time, and that some cost factors did decrease in 1986. Accordingly, the staff argues that the entire concept of the DR&R is speculative and that none should be approved.

The State supports the concept of a DR&R charge, but argues that the ID also understated the earnings that would occur on the funds collected. The State asserts that since all funds collected to cover DR&R costs are commingled with corporate funds, they should be deemed to earn a return equal to the after-tax cost of capital applicable to all of Kuparuk's other assets. The State would require Kuparuk to keep a separate accounting of all DR&R funds, and would then adjust Kuparuk's cost of service to reflect the earnings on the account. The State did not challenge the actual method for determining the annual cost that should be credited to the DR&R account.

Kuparuk excepts to the basic assumptions in the ID's method for calculating the DR&R cost, while supporting the charge itself. First, Kuparuk asserts that the requirement of an external fund is not authorized by the ICA, and that there are significant administrative hurdles involved in the administration of such a fund. Second, Kuparuk asserts that an internal accounting would be adequate to assure that the funds are available when needed. Third, Kuparuk argues that the ID improperly uses an accrual method rather than an annuity method to determine the proper annual cost. Under this method all costs, including estimates for inflation and changes in cost factors, should be included in the DR&R costs to be amortized, and current rates should reflect all those costs, including an allowance for the interest component of the annuity. Finally, Kuparuk asserts that the ID was simply wrong in assuming that the interest on any DR&R fund would protect Kuparuk from inflationary increases in its projected DR&R costs.

The Commission agrees that Kuparuk should be permitted to recover its DR&R costs for the reasons stated in the ID. However, the Commission will modify the method the ID used to implement the DR&R cost deduction. First, the Commission will permit Kuparuk to use a UOT method of amortizing its DR&R costs that parallels the depreciation methodology used here. If the UOT method is not utilized and the costs escalate, they will fall most heavily on those shippers transporting oil when throughput volumes are lower. The first Tennessee case, supra, upon which staff relies, appears to turn on the fact that the depreciation of the assets in question would be completed substantially in advance of the normal amortization of the DR&R, and that the costs would fall unduly on the shippers first using the pipeline. Here the depreciation period and the period in which the DR&R will be recovered are the same length, and correspond to the depreciation period and methodology adopted in this order.

Second, the Commission will use the accrual rather than the annuity method to determine the permitted DR&R cost. The annuity method is premised on complex assumptions on the rate of inflation generally, changes in specific factor prices involved in North Slope operations, uncertain and unsubstantiated changes in productivity, possible joint operations with other companies, changes in the market for surplus materials, and modifications in regulatory policy. Kuparuk's request that this issue be remanded for further litigation simply highlights the speculative and administratively complex nature of this undertaking.

Third, the Commission will reverse the requirement of an external fund. Unlike the electric utility cases cited by staff, only a handful of easily identified customers are involved in the instant case, and any refunds would flow primarily to Kuparuk's owners. The Commission notes at this point that Kuparuk will be liable if the accumulated DR&R funds are not used for that purpose, and that as general partners, Kuparuk's owners will be liable to any shippers if Kuparuk itself should lack the funds to make the required refunds. The Commission will require maintenance of a designated account, supra, and Kuparuk must state in its annual reports the sums credited to the DR&R fund.

Finally, the Commission will adopt staff's recommendation that the accrued funds be

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89 This account must include an entry for any funds accrued to date or transferred to Kuparuk under the Partnership Agreement.
deducted from the rate base since Kuparuk has the cost free use of the funds until they are actually expended for DR&R purposes. The State would permit the DR&R fund to be included in the rate base but to have Kuparuk's cost of service reduced by a return equal to that of Kuparuk's nominal after tax cost of capital. The Commission practice is to reduce the rate base rather than the rate of return, and will do so here. This decision to deduct the accruing account from the rate base moots any debate about the interest rate that should be applied. The Commission will also adopt staff's recommendation on the tax payments that will result from the interest actually accrued on the DR&R funds. The ID is modified accordingly.

G. Other cost issues and Remedies

Exceptions were filed to three cost issues: (1) the throughput to be used; (2) whether there should be a cost adjustment to reflect tax changes as a result of the Tax Equity and Fiscal Accountability Act of 1982 (TEFRA); and (3) the proper amortization period for Kuparuk's litigation expenses in this case. In addition, Kuparuk requests that any relief not be applied retroactively.

The ID did not make any determinations on the appropriate amount of throughput because the adoption of a variable tariff mechanism mooted this determination. The Commission has ruled that an involuntary variable tariff mechanism is unlawful, and it will make a merits determination here.

Staff recommends a throughput of 101,681,355 barrels per year. Kuparuk argues that the use of any information beyond its 1985 test period violates the Commission's policy against making the test year a moving target. Kuparuk further argues that the test year is based only on 1985 data, and given Kuparuk's short operating history, the record might be reopened to obtain additional information, or alternatively, the Commission might use the actual information available for 1984 and 1985. Staff replies that Kuparuk submitted actual data in response to data requests showing approximately 50,422,000 barrels for the first six months of 1986, which reflects a strong upward trend in volume, and that this was the basis for staff's use of 1986 as the base year.

Staff also asserts that the Stipulation shows a projected throughput increase of 28 percent over 1985 volumes, or approximately 102,557,659 barrels. It asserts that this confirms that staff's estimate of 101,681,355 barrels per year was reasonable, and further notes that the Stipulation indicates that Kuparuk's throughput will increase through 1990. Staff asserts that any arguments to the contrary are speculative. Given Kuparuk's 100 million barrel throughput in 1986, the stipulated throughput profile, and the lack of persuasive evidence that throughput will decline, staff argues that the Commission should not adhere strictly to Kuparuk's definition of the test period.

The Commission agrees that the projected throughput urged by Kuparuk is too low to be used for the years at issue here. At the same time, the Commission recognizes that in 1984 and 1985 Kuparuk was in a start up phase and that adopting Staff's volumes for those years could lead to an underrecovery of costs in those years. Kuparuk may use its projected volumes of 85 million barrels for the years 1984 and 1985, and shall use staff's level of 101,681,355 barrels in 1986 and 1987. Projections for the years after 1987 may be developed in Phase II of this proceeding, including modification of the Stipulation if this proves necessary. In its action here the Commission is relying on the volumes actually stipulated by the parties, and therefore Kuparuk's assertion that the Commission is improperly extending the test period is irrelevant. The ID is modified accordingly.

The ID permitted Kuparuk to utilize the full 10 percent investment tax credit (ITC) permitted it under the TEFRA. The ID concluded that Kuparuk has the right to make maximum use of the investment tax credit created by Congress without a reduction in that benefit through regulatory action. Specifically, TEFRA permits the taxpayer to elect either a 10-percent tax credit, with a 95-percent depreciable tax basis, or an eight percent ITC with a 100-percent depreciable basis. The State exceptions, arguing that Kuparuk's income tax for ratemaking purposes should reflect a hypothetical 100-percent depreciation tax basis rather than the depreciation tax basis of 95 percent actually used by Kuparuk and staff. The ID is affirmed as it correctly concluded that TEFRA created a statutory right that may not be diminished by state or federal regulatory action.

90 See Tennessee Gas, supra, at 25 FERC at p. 61,220.
91 See Ex. No. KTC 4-0, at pp. 18,19.
92 See Ex. No. FERC 24-3, Schedule 1.
93 In any event, the Commission may rely on evidence outside the test period if this is necessary to achieve a rational result. See Paiute Pipeline Company, 54 FERC 61,338 n.14, at p. 9, slip opinion issued March 26, 1991. In this case the actual throughput for the years 1986 and 1987 was close to the projections adopted in this case.

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The ID also concluded that Kuparuk's estimated litigation expenses for this proceeding should be amortized over three years. Staff excepts, arguing that the amortization of these costs should be over five years. Kuparuk argues that no amortization is appropriate because the $800,000 in test year costs represents the actual cost for the test year and should be recouped through its cost of service, or at least over not more than three years. Staff argues that Kuparuk's analysis assumes that it will incur $800,000 in litigation costs in each of the years that the current rates are in effect, just as other costs included in Kuparuk's cost of service are assumed to occur in each year that the rates are in effect. The ID also determined that Commission precedent permits amortization of such costs over three years; since the three year period to which this order applies involves locked in rates, the three year period adopted by the ID is appropriate. Therefore, the ID will be affirmed.

Finally, Kuparuk urges that any relief should be applied only prospectively. It argues that its initial and revised rates were filed well before the Commission's standards in Opinion No. 154-B, which issued on June 28, 1985. The ID rejected this argument on the grounds that Kuparuk was clearly on notice that cost-based rate making would be involved, and that Kuparuk chose to set its rates as high as possible. Kuparuk replies that it had to select its initial rates from a wide range of possible rate levels to avoid a possible shortfall in cost recovery if its initial rates were too low. Staff argues that all regulated enterprises set their rates in anticipation of the regulatory climate, and that Kuparuk was simply incorrect on a number of important factors. This in itself should not justify abnormally high returns even though reparations are clearly discretionary under the ICA.

The Commission agrees with the State and staff that the reasonableness of Kuparuk's rates is governed by the law in effect at the time when this decision issues, and all rates for the complaint period should be so decided. Kuparuk's request that this order be applied prospectively only is denied.

The Commission orders:

(A) The Initial Decision is affirmed and modified as stated in the body of this order.

(B) The proceeding in OR90-1-000 is remanded for determination of the reasonableness of Kuparuk's rates for the calendar years 1988 and 1989, and subsequent years.

(C) Within 30 days of the issuance of this order, Kuparuk shall file tariff sheets that conform to the provisions of this order, provided that if a rehearing request is filed, then Kuparuk shall file such tariff sheets within 30 days after Commission action on any such request.

(D) Kuparuk shall include in its revised filing a schedule of refunds, if any, to be paid to its shippers as a result of this order; all refunds to be paid beginning with the date the tariffs were filed in this proceeding.

(E) A presiding administrative law judge, to be designated by the Chief Administrative Law Judge for that purpose (18 C.F.R. § 375.304), shall convene a prehearing conference in the proceeding in OR90-1-000 to be held within 45 days after the issuance of this order, in a hearing or conference room of the Federal Energy Regulatory Commission, 810 First Street, NE., Washington, DC 20426. The prehearing conference shall be held for the purpose of clarification of the positions of the participants; delineation of the issues, and establishment by the presiding judge of any procedural dates necessary for the hearing. The presiding administrative law judge is further authorized to conduct further proceedings in accordance with the order and the Rules of Practice and Procedure.