

EX PARTE NO. 290 (SUB-NO. 7)

PRODUCTIVITY ADJUSTMENT - IMPLEMENTATION

Decided September 26, 1996

The Board denies Western Coal Traffic League's petition to reopen this proceeding and recalculate the productivity adjustment to the Rail Cost Adjustment Factor (RCAF) to reflect all productivity changes since 1981. While the Board would not declare existing productivity-adjusted RCAF to be incorrect, it does agree, as part of the RCAF publication process, to publish a second productivity-adjusted RCAF, called the RCAF-5, that reflects the levels at which the productivity-adjusted RCAF would have been set if the ICC had, since the time it first adopted a productivity adjustment, used a continuous 5-year rolling average period for measuring productivity.

BY THE BOARD:¹

This decision addresses a petition filed by the Western Coal Traffic League (WCTL), an organization of coal shippers and receivers, asking the ICC to reopen this proceeding and recalculate the productivity adjustment to the Rail Cost Adjustment Factor (RCAF). WCTL asserts that the productivity adjustment (and hence the productivity-adjusted RCAF itself) is inaccurate, because the ICC, in finalizing its procedures for calculating railroad productivity, failed to recognize all productivity improvements that have been

¹ The ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (ICC Termination Act), which was enacted on December 29, 1995, and which took effect on January 1, 1996, abolished the Interstate Commerce Commission (ICC) and transferred certain ICC functions to a newly created Surface Transportation Board (Board). Section 204(b)(1) of the ICC Termination Act provides, in general, that proceedings pending before the ICC on the effective date of that legislation shall be decided under the law in effect prior to January 1, 1996, insofar as they involve functions retained by the new law. This decision relates to a proceeding that was pending with the ICC prior to January 1, 1996, and to functions that are subject to Board jurisdiction pursuant to 49 U.S.C. 10708. In this decision, we will address both old and new law, as appropriate.

realized in the railroad industry since 1981. WCTL asks that the railroad productivity figure used to calculate the RCAF be increased by 13.4%, and that the productivity-adjusted RCAF itself be reduced accordingly.²

We will not declare the existing productivity-adjusted RCAF to be incorrect, and restate it at a different level, which we would then declare to be the "correct" level. We will, however, as part of the RCAF publication process, publish a second productivity-adjusted RCAF (which we will call the "RCAF-5") that reflects the levels at which the productivity-adjusted RCAF would have been set if the ICC had, since the time it first adopted a productivity adjustment, used a continuous 5-year rolling average period for measuring productivity.

BACKGROUND

The RCAF was established in the Staggers Rail Act of 1980 (Staggers Act) as a quarterly index intended to track changes in railroad costs. Its purpose was to protect from challenge on rate reasonableness grounds rail tariff rate increases that simply reflected increased costs. Congress set up the process by designating as "base rates" the tariff rates that were in effect on October 1, 1980. It provided that, when a base rate was increased by not more than the RCAF, it could not be challenged as unreasonably high.

Congress did not set up the RCAF as simply a single, continuing index that could be applied to the 1980 base rates at any time. Rather, it required that base rates be "rebased" in 1982, 1984, and every 5 years thereafter. The purpose of rebasing was to tie protected rate increases to relatively contemporaneous cost increases. Thus, if a railroad did not increase a rate for a particular movement to keep up with the RCAF, then at the end of the 2- or 5-year basing period, the rate would be rebased at its existing level, and future increases would be protected only to the extent that increases to the rebased rates did not exceed future RCAF changes. In other words, to the extent that a carrier's tariff rates

² Replies in support of WCTL's petition were filed by Edison Electric Institute and Intermountain Power Agency, and by Union Electric Company and Wisconsin Power and Light Company. The Association of American Railroads (AAR) replied in opposition to WCTL's petition.

did not keep up with the RCAF, at the end of each rebasing period, they would lose the protection afforded by all increases in the RCAF up to that time.³

The productivity adjustment has been contentious from the start. Initially, in a decision issued in 1981, the ICC determined not to adjust the RCAF price index to reflect productivity, but rather, to measure only the change in the prices of inputs, such as labor and fuel, used to produce railroad services. *Railroad Cost Recovery Procedures*, 364 I.C.C. 841 (1981). The ICC's 1981 decision was challenged by shippers on the ground that the law required the ICC to adjust the RCAF price index to reflect productivity.⁴ Finding that the ICC had discretion as to whether and how to adjust the RCAF, the reviewing court affirmed the ICC's decision. *Western Coal Traffic League v. United States*, 677 F.2d 915 (D.C. Cir. 1982).

In *Railroad Cost Recovery Procedures-Productivity Adjustment*, 5 I.C.C.2d 434 (1989) (*Productivity Adjustment*), the ICC changed its approach. Finding that accurate productivity measurements had become more feasible than before, the ICC modified the RCAF calculation so that changes in railroad costs would reflect changes in railroad productivity as well as changes in input prices.⁵ The ICC's decision in *Productivity Adjustment* was challenged by both railroads and shippers. Railroads asserted that the ICC acted improperly in adopting a productivity adjustment at all. Shippers asserted that the ICC acted improperly by applying its productivity adjustment prospectively only, in the face of their claims that the RCAF itself should be reduced by 8.2% to reflect "uncaptured" productivity realized since passage of the Staggers Act. The ICC's decision to recognize productivity, but to apply its new approach prospectively only, was

³ As an example, suppose that a carrier's adjusted base rate for a particular service is \$100. Suppose further that, because the RCAF increases by 10% during a particular basing period, the carrier could increase its protected rate to \$110. The carrier, however, chooses to increase its rate only to \$104 during the basing period. When the RCAF is rebased, the carrier's new adjusted base rate will be only \$104, even though it could have been \$110, had the carrier taken full advantage of the RCAF during the prior basing period. As a result, if the RCAF increases by 10% during the next basing period, the carrier's maximum protected rate will be only \$114.40 (\$104 x 110%), rather than \$121 (\$110 x 110%), which it would have been if the carrier had taken full advantage of the RCAF all along.

⁴ The shippers' view was that railroad rates could be protected as "cost-based" only if the railroads "gave back" productivity improvements to their shippers by reducing their rates, or by moderating their rate increases, to account for increased railroad productivity.

⁵ Thus, since productivity was incorporated into the RCAF, the RCAF has measured not only changes in the cost of goods and services *used to produce* rail service (sometimes referred to as input costs), but also changes in the actual cost of *producing* railroad services (sometimes referred to as output costs).

affirmed in *Edison Electric Institute v. ICC*, 969 F.2d 1221 (D.C. Cir. 1992) (*Edison Electric*).

The issue that WCTL raises here is, in some respects, similar to the one that it and other shippers raised unsuccessfully in *Edison Electric*. Essentially, WCTL does not dispute the approach that the ICC adopted in the instant proceeding (which uses a 5-year rolling average, described in some detail later, to calculate productivity), nor does WCTL challenge the way in which the ICC's final procedures evolved. WCTL asserts, however, that, because the ICC's final procedures applied prospectively only, and did not capture all productivity realized since 1981, they are unfair to the shippers. WCTL asks that the productivity adjustment, and ultimately, the productivity-adjusted RCAF, be "restated" to reflect all productivity change that was overlooked since 1981.⁶

BASIS FOR WCTL'S ARGUMENTS

Because year-to-year productivity changes can vary significantly, the ICC determined in *Productivity Adjustment* that the productivity calculation should be based on a multi-year average of annual productivity growth. The ICC sought to address two somewhat conflicting goals in developing its averaging period, concluding that the averaging period should be long enough to stabilize the RCAF by smoothing the impact of year-to-year swings in productivity, but short enough to reflect reasonably current productivity changes.

Initially, the ICC determined that the averaging period ideally should encompass an entire business cycle so that it would include both peaks and valleys in railroad productivity. There was, however, substantial disagreement as to how to measure a business cycle. Therefore, the ICC concluded that, until it found a way to identify a business cycle and import it into the productivity exercise, it would begin by using a 5-year averaging period consisting of productivity data from the years 1982-1986.⁷ In an action that was cited with

⁶ In *Edison Electric*, the court affirmed the ICC's conclusion that a restatement of the RCAF to recognize all productivity experienced since 1981 would not be appropriate, on the ground that data inadequacies precluded the agency from applying its productivity methodology to old RCAF values.

⁷ Because the productivity adjustment measures the change in productivity from year to year, the 1982 figure reflects the change in productivity from 1981 to 1982; the 1983 figure reflects the change from 1982 to 1983; and so forth. Data limitations precluded using data for periods before (continued...)

approval by the court in *Edison Electric*, 969 F.2d at 1227, the ICC determined that it would lengthen the averaging period by adding new years' data as soon as they became available.⁸ Thus, when the 1987 data became available in the fourth quarter of 1989, the ICC moved to a 6-year (1982-1987) average; when the 1988 data became available in the third quarter of 1990, the ICC moved to a 7-year (1982-1988) average; and when the 1989 data became available in the second quarter of 1992, the ICC moved to an 8-year (1982-1989) average.⁹

Ultimately, in its decision in the instant proceeding in *Productivity Adjustment - Implementation*, 9 I.C.C.2d 1072 (1993) (*Implementation*), the ICC determined that it would not be feasible to seek to tie the productivity adjustment to a business cycle. Rather, it concluded that it should calculate the productivity adjustment using a "rolling average," under which a fixed period would be set for determining productivity, and under which data for a new year, when they became available, would be added to the index in place of the data for the oldest year, which would be dropped. The ICC found that a 5-year averaging period -- which was supported by most of the shippers, including a group with which WCTL was affiliated -- would best accommodate the dual objectives of currency and stability. Thus, it determined that, for the first quarter of 1994, it would use a productivity index consisting of the productivity data for the most recent 5-year period available, and would drop from the formula all productivity data more than 5-years old.

WCTL seeks reopening because the ICC, in making the transition from a continually expanding averaging period to a fixed 5-year rolling average, did not equally capture all productivity gains experienced by the railroad industry since

⁷(...continued)

1981-1982, and the data for 1987 were not yet compiled and verified in early 1989. Therefore, when the ICC first adopted the productivity adjustment, 1982 was the earliest year, and 1986 was the latest year, for which data were available.

⁸ The RCAF is recalculated on a quarterly basis. The new productivity figures were typically incorporated into the next quarterly RCAF after they became available.

⁹ The productivity calculation generally became available on approximately a 2-year lagged basis. However, because the productivity data did not become available at the same time each year, there was no set point each year at which the averaging period, and hence the RCAF, would be changed. For the same reason, the averaging period was not extended in a uniform manner. Thus, the ICC's productivity averaging period covered 5 years for 2 quarters, 6 years for 3 quarters, 7 years for 4 quarters, and 8 years for 5 quarters.

1981.¹⁰ WCTL notes that the ICC, in adopting the productivity adjustment, denied AAR's request that productivity gains be "shared" among railroads and shippers,¹¹ and that it later rejected AAR's argument that productivity should be reduced by 30-35% to offset aberrations related to the business cycle issue. The failure to equally capture all productivity gains experienced during the 1982-1991 period, WCTL argues, is tantamount to an order requiring that productivity be shared.

To measure the amount of productivity that it asserts ought to be incorporated into the RCAF, WCTL sets out the percentage gain or loss in productivity calculated under the ICC's procedures for each year between 1982 and 1991. It then calculates how much of each year's gain or loss was actually incorporated into the RCAF between the second quarter of 1989, when the productivity adjustment was first applied, and the first quarter of 1994, when the 5-year rolling averaging period was applied. It calculates that unincorporated productivity amounts to 13.2% , and it asks that the 13.2% productivity differential be incorporated into the RCAF gradually over a period of years.

AAR opposes reopening. It contends that it would be inappropriate to adopt a new 5-year period retroactively, and to include in the calculations productivity data for years that were not entirely captured at the time the new 5-year averaging period was set. Its position is that WCTL's proposed approach, which effectively would adopt an 11-year averaging period (1982-1992), contravenes

¹⁰ Each year's data are weighted according to the number of years in the averaging period. Thus, when the averaging period is 5 years long, each year's productivity figure constitutes one-fifth of the average; when the averaging period is 6 years long, each year's productivity figure constitutes one-sixth of the average; and so forth. If the averaging period remained constant, and the productivity experience for a particular year remained in the index for the number of years in the averaging period, then the productivity for that particular year would be entirely captured in the productivity adjustment just as that year's data were dropped from the equation. To use an example, if the averaging period were 5 years, and the productivity improvement for year X were 5 percent, then 1/5 of year X's 5 percent productivity gain would be captured each year; if year X remained in the index for 5 years, then, at the end of the fifth year, the full 5 percent productivity gain for year X would have been captured, and year X productivity would be replaced by the data for year (X+5). WCTL's argument, which its calculations do not entirely support, is that productivity for the period 1982-1991 was not fully captured because the figures for certain years, while they were in the productivity calculation, were given less weight by virtue of the longer averaging period, and then were dropped from the productivity figure when the averaging period was shortened.

¹¹ A shared productivity arrangement, for RCAF purposes, would import into the RCAF only a portion of the rail industry's productivity gains.

the principle that the productivity adjustment be constructed so that the data it includes be as current as possible. Finally, AAR notes that "restatement," or retroactive application of the new rule, would contravene the judicially approved approach that the ICC took when it first adopted the productivity adjustment.

DISCUSSION AND CONCLUSIONS

The ICC Termination Act substantially changed the function of the RCAF, and the government's role in calculating it. When it was first enacted in the Staggers Act, the RCAF was a fundamental component of the regulatory scheme governing challenges to the reasonableness of railroad tariff rates. Tariff rates that remained at, or below, the level of the RCAF were protected, while those that exceeded the RCAF were not. Moreover, as described earlier, to be protected, rate increases had to be relatively contemporaneous with cost increases.

In fact, for many movements, railroads gave back at least some of their productivity gains by not increasing their tariff rates to the full extent permitted by the RCAF.¹² Under restatement, however, a railroad that already passed through productivity for a particular period -- e.g., a railroad that, between 1981 and 1989, kept its tariff rates at levels that were 8.2% lower than they could have been under the RCAF, and then had its base rates rebased at the RCAF-minus-8.2% level -- could be forced to pass the same productivity through again if a future RCAF were reduced by 8.2%.¹³ That was one reason why the ICC refused to restate the RCAF when it first adopted the productivity adjustment, and why, on numerous other occasions, the ICC followed a consistent policy of applying regulatory changes to the RCAF prospectively only, without restating the index.¹⁴

¹² The ICC, in *Productivity Adjustment*, and the court, in *Edison Electric*, 969 F.2d at 1223, recognized that, "[i]n practice, * * * filed rates have generally been below adjusted base rates."

¹³ Similarly, under the tariff-based system in effect prior to the ICC Termination Act, a carrier establishing a new rate would lose the RCAF protection to which it would otherwise have been entitled if the RCAF had been reduced under WCTL's approach.

¹⁴ The ICC occasionally made relatively contemporaneous modifications to the RCAF index. For example, in a decision issued in 1986 in a rulemaking proceeding, the ICC developed its "forecast error adjustment," under which it corrected errors in forecasting costs when the actual costs became available a few months later. See, *Railroad Cost Recovery Procedures*, 3 I.C.C.2d 60 (1986)(*Cost Recovery*), *aff'd*, *Alabama Power Co. v. ICC*, 852 F.2d 1361 (D.C. Cir. 1986) (*Alabama Power*). However, the ICC denied the shippers' request that it implement a one-time

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Thus, the ICC's judicially approved policy against restating the RCAF to reflect regulatory changes was reasonable when it was first applied; in our view, it is still a reasonable way of measuring cost changes. Accordingly, we see no basis on which to reject the current productivity-adjusted RCAF and replace it with another set of values. Given the statutory changes effected by the ICC Termination Act, however, it would not be unreasonable to publish the existing productivity-adjusted RCAF, but also to restate the RCAF to reflect the RCAF (Adjusted) values that would have been set had the ICC consistently used a rolling 5-year average.

The regulatory significance of the RCAF was substantially diminished by changes in the ICC Termination Act, to other statutory provisions, in particular, the elimination of rail tariff filing. As railroads no longer file tariffs, the RCAF will not, in the future, provide a benchmark for the reasonableness of rail tariff rates, and railroads will no longer be vulnerable to the possibility that they might pass through productivity voluntarily in their tariffs, and then be required to do so again as a result of regulatory action. Thus, in carrying forward, in new 49 U.S.C. 10708, the practice of publishing the RCAF (Unadjusted) as a price index and the RCAF (Adjusted) as a productivity-adjusted cost index, Congress sought no more than to provide private parties with "a neutral and authoritative benchmark for inflation-based escalation of [contract] rates." See, H.R. Rep. No. 422, 104th Cong., 1st Sess. 175 (1995).¹⁵

To fulfill our role of being "neutral and authoritative," we do not need to pick one methodology, declare it to be the "correct" methodology, and declare all other methodologies to be "incorrect." Indeed, Congress itself recognized that there is more than one reasonable way of calculating the RCAF when it required us to publish both an unadjusted and a productivity-adjusted RCAF. And the RCAF is to be used principally as a benchmark for contracts; it is now well settled that disputes over rail contracts are to be resolved in court, rather than at this agency. Thus, there is no reason why, in fulfilling the ministerial

¹⁴(...continued)

adjustment of the RCAF to offset cumulative pre-1986 forecast errors. That action was explicitly affirmed in *Alabama Power*.

¹⁵ The ICC historically recognized that private parties used the RCAF as a benchmark in their private contracts, but it concluded that these activities were matters that "we do not control, and which should not be and ha[ve] not been our primary focus." *Implementation*, 9 I.C.C.2d at 1060. See also, *Railroad Cost Recovery Procedures*, Ex Parte No. 290 (Sub-No. 2) (ICC served November 14, 1986 and December 18, 1986), at 6 and 1-2, respectively.

role that Congress assigned us, we should not measure productivity (and hence the productivity-adjusted RCAF) in two ways: under the approach used by the ICC (no restatement) and under the approach suggested by WCTL (restatement). Then, in any particular contract litigation, it would be up to the court to determine which approach, if either, was intended by the parties in entering into their contract.

We will now explain how we will effect restatement to produce the second productivity-adjusted index, which we will continue to publish in the future, along with the existing RCAF (Adjusted) and RCAF (Unadjusted).

A. Incorporation of All Productivity Data Since 1982.

As noted, WCTL correctly observes that, as a result of the ICC's prospective application of its new approach, certain years' productivity experience was given less weight than it would otherwise have received. That fact, however, does not support WCTL's argument that a restated index should reflect all productivity gains experienced in the rail industry since 1982.

WCTL argues that the reason it is aggrieved is because in late 1993, after allowing the averaging period to grow to 8 years, the ICC suddenly and permanently adopted a 5-year averaging period. However, even if the ICC had used a 5-year rolling average during the entire period since it first adopted the productivity adjustment in 1989, the productivity adjustment would not have equally captured all of the productivity changes experienced in the railroad industry since 1981. Rather, had the ICC continuously used a rolling 5-year average beginning in 1989, the productivity data for the earlier years would have received less consideration than they were actually given.¹⁶

In other words, WCTL's proposed solution -- recalculation of the RCAF to include all productivity since 1982 -- does not remedy the problem that WCTL has raised. To the contrary, in light of the rolling 5-year average that the ICC ultimately adopted in 1989, most of the experience during the early years that was captured by the productivity adjustment received inordinate, rather than

¹⁶ Under the approach used by the ICC, the data for the early years of the first (1982-1986) averaging period remained in the productivity calculation through the fourth quarter of 1993, a period of 19 quarters. If a rolling 5-year average had been used from the start, data for 1982 would have remained for only 2 quarters (the second and third quarters of 1989) before being replaced with data for 1987. Data for 1983 would have remained for only 5 quarters (the second quarter of 1989 through the second quarter of 1990) before being replaced with data for 1984. Similar weighting problems would occur for other years.

inadequate, weight.¹⁷ Even assuming that we could do so, we will not publish a restated RCAF that incorporates all productivity experienced since 1982 in order to address WCTL's concerns about the transition to a rolling 5-year averaging period.

*B. Replacement of the Current Index With a Restated Index
Using a 5-Year Rolling Average.*

The productivity data for certain years, however, plainly were not weighted evenly, as they would have been if a straight 5-year average had been used all along. Therefore, in light of our earlier discussion, we will reconstruct the RCAF as it would have looked if a 5-year rolling average period had been used since the second quarter of 1989, and publish it each quarter as the RCAF-5, along with the adjusted and unadjusted RCAF values already published.

We will continue to publish the RCAF (Unadjusted) and the RCAF (Adjusted) as before. Thus, the RCAF (Adjusted) will continue to use a 5-year geometric average, and we will continue to update the 5-year trend as soon as we can after the data become available. Unlike the RCAF-5, the RCAF (Adjusted) will be updated as quickly as possible, but it will not necessarily give the same weight to each year's data.

The RCAF-5, by contrast, will not always be updated as quickly as the RCAF (Adjusted), but it will always be symmetrical, and each year's data will be consistently weighted. To produce the RCAF-5, we will begin with the second quarter of 1989, the first quarter for which a productivity-adjusted RCAF, the RCAF (Adjusted), was published. We will lag data for 2 years and update the rolling 5-year average in the first quarter of each year. Thus, the second, third and fourth quarters of 1989 will use a productivity trend for the years 1982-1986. The four quarters of calendar year 1990 will use a 5-year productivity trend for the period 1983-1987 and calendar year 1991 will use average productivity for the years 1984-1988. This pattern will be followed in

¹⁷ WCTL's claim (petition at 4) that the shortening of the averaging period "inevitabl[y] * * * exclude[d] a substantial portion of the productivity gains that occurred in the rail industry from 1982 through 1991" is thus incorrect. Indeed, there is no "inevitability" as to whether productivity would be overstated or understated as a result of the process. The determinative factor is whether the productivity experience that was excluded is above or below the average productivity calculated over time under the ICC's productivity adjustment.

all subsequent quarters so that the productivity values for each year will, as part of a constant 5-year trend, be present for 20 consecutive quarters.

The methodology for calculating the RCAF-5 will be the same as the one used to calculate the RCAF (Adjusted). The Productivity Adjustment Factor (PAF) for the current quarter will be computed by multiplying the PAF for the preceding quarter by the fourth root of the average annual productivity change for the 5-year period used. The average annual productivity change will be computed using a geometric average. The RCAF (Unadjusted) will then be divided by the PAF to calculate the productivity-adjusted RCAF-5. The only difference between the calculation of the RCAF-5 and the RCAF (Adjusted) will be in the timing of the application of the 5-year productivity trend. The RCAF-5 will maintain a consistent 2-year lag in the application of the 5-year productivity trend. The RCAF (Adjusted) calculation will use a revised 5-year productivity trend on an "as available" basis.

A chart reflecting the values for the RCAF (Unadjusted), the RCAF (Adjusted), and the RCAF-5 from the second quarter of 1989 is shown in the Appendix to this decision.

C. Conclusion.

Throughout the ICC's RCAF proceedings, both railroads and shippers sought to resolve regulatory issues largely with a view toward the impact that the regulatory fix would have on their private contracts. The ICC -- properly, in our view -- vigorously maintained its neutrality with respect to the impact of its regulatory actions on unregulated contracts. Now, the agency's role as to the RCAF specifically focuses only on unregulated contracts. Nevertheless, the concept of neutrality has not been abandoned, and, in fact, has been expressly mandated by Congress. We are of the view that we can best maintain our neutrality by publishing a second adjustment to the RCAF reflecting the productivity-adjusted RCAF values that would have been produced had a 5-year averaging period been applied consistently. Given the changes that Congress made in our role in administering the RCAF, we expect that the parties, through negotiation, will resolve which RCAF figure might be "right" or "wrong" for their particular transportation contracts. If they cannot resolve such matters privately, however, the determination of which RCAF value ought to be used in a particular case is a determination that should be made only by a court in the context of a specific contract dispute.

1 S.T.B.

ENVIRONMENTAL AND ENERGY CONSIDERATIONS

This decision will not significantly affect the quality of the human environment or the conservation of energy resources.

REGULATORY FLEXIBILITY ANALYSIS

Pursuant to 5 U.S.C. 605(b), we conclude that our action in this proceeding will not have a significant economic impact on a substantial number of small entities. No new regulatory requirements are imposed, directly or indirectly, on such entities. The purpose of our action is simply to determine whether the ICC's prior decision adopting procedures for measuring railroad productivity changes should be modified. Reporting requirements remain unchanged. The economic impact on small entities, if any, is not likely to be significant within the meaning of the Regulatory Flexibility Act.

It is ordered:

1. The petition to recalculate the productivity adjustment to the RCAF to reflect all productivity changes since 1981 is denied.
2. A new additional RCAF index, the "RCAF 5" as shown in the Appendix, is adopted.
3. In all other respects, WCTL's petition is denied.
4. This decision is effective on October 3, 1996.

By the Board, Chairman Morgan, Vice Chairman Simmons, and Commissioner Owen.

APPENDIX¹⁸

(1)	RCAF (UNADJUSTED) (2)	PROD. ADJ. (3)	RCAF (ADJUSTED) (4)	PROD. ADJ-5 (5)	RCAF-5 (6)
Q 2 1989	1.052	1.7%	1.048	1.6%	1.048
Q 3 1989	1.067	1.7%	1.058	1.6%	1.059
Q 4 1989	1.080	4.4%	1.060	1.6%	1.067
Q 1 1990	1.088	4.4%	1.056	5.8%	1.060
Q 2 1990	1.098	4.4%	1.054	5.8%	1.055
Q 3 1990	1.098	4.4%	1.043	5.8%	1.040
Q 4 1990	1.126	4.4%	1.058	5.8%	1.052
Q 1 1991	1.145	4.4%	1.065	4.8%	1.057
Q 2 1991	1.143	4.4%	1.051	4.8%	1.043
Q 3 1991	1.148	4.4%	1.045	4.8%	1.035
Q 4 1991	1.174	4.4%	1.057	4.8%	1.046
Q 1 1992	1.168	4.4%	1.040	4.7%	1.029
Q 2 1992	1.162	4.4%	1.024	4.7%	1.012
Q 3 1992	1.158	4.4%	1.010	4.7%	0.997
Q 4 1992	1.187	4.4%	1.024	4.7%	1.010
Q 1 1993	1.012	4.4%	0.863	6.2%	0.849
Q 2 1993	1.005	4.4%	0.848	6.2%	0.830

¹⁸ Column 1 indicates the period involved. Column 2 reflects the RCAF (Unadjusted). Column 3 represents the productivity adjustment used to produce RCAF (Adjusted). Column 4 reflects the RCAF (Adjusted). Column 5 represents the productivity adjustment used to produce RCAF-5. Column 6 reflects the RCAF-5. See notes, attached.

(1)	RCAF (UNADJUSTED) (2)	PROD. ADJ. (3)	RCAF (ADJUSTED) (4)	PROD. ADJ-5 (5)	RCAF-5 (6)
Q 3 1993	1.013	4.4%	0.846	6.2%	0.824
Q 4 1993	1.025	4.4%	0.847	6.2%	0.822
Q 1 1994	1.029	5.0%	0.840	4.7%	0.815
Q 2 1994	1.024	5.0%	0.826	4.7%	0.802
Q 3 1994	1.046	5.0%	0.833	4.7%	0.810
Q 4 1994	1.045	5.0%	0.822	4.7%	0.800
Q 1 1995	1.058	5.0%	0.822	5.0%	0.800
Q 2 1995	1.070	5.9%	0.820	5.0%	0.799
Q 3 1995	1.080	5.9%	0.816	5.0%	0.797
Q 4 1995	1.079	5.9%	0.803	5.0%	0.787
Q 1 1996	1.066	5.9%	0.782	5.9%	0.766
Q 2 1996	1.063	5.9%	0.769	5.9%	0.753
Q 3 1996	1.074	5.9%	0.766	5.9%	0.750
Q 4 1996	1.092	5.9%	0.768	5.9%	0.752

Notes to Appendix

Column (1) represents the quarterly RCAF period involved.

Column (2) shows the RCAF (Unadjusted) as published by the Interstate Commerce Commission and its successor the Surface Transportation Board in decisions in STB Ex Parte No. 290 (Sub-No. 5), *Quarterly Rail Cost Adjustment Factor*.

Column (3) shows the average annual productivity value used to calculate the RCAF (Adjusted) shown in Column (4). Averages used from the second quarter 1989 through the fourth

quarter of 1991 are arithmetic. Subsequent averages are geometric. A 5-year arithmetic average for the years 1982 through 1986 was used for the second and third quarters of 1989. A 6-year arithmetic average for the years 1982 through 1987 was used from the fourth quarter of 1989 through the second quarter of 1990. A 7-year arithmetic average for the years 1982 through 1988 was used from the third quarter of 1990 through the first quarter of 1992. An 8-year geometric average for the years 1982 through 1989 was used from the second quarter of 1992 through the fourth quarter of 1993. A 5-year geometric average for the years 1988 through 1992 was used from the first quarter of 1994 through the first quarter of 1995. A 5-year geometric average for the years 1989 through 1993 was used from the second quarter of 1995 through the second quarter of 1996. A 5-year geometric average for the years 1990 through 1994 was used for the third and fourth quarters of 1996.

Column (4) shows the RCAF (Adjusted) as published by the Interstate Commerce Commission and its successor the Surface Transportation Board in decisions in STB Ex Parte No. 290 (Sub-No. 5), *Quarterly Rail Cost Adjustment Factor*.

Column (5) shows the average annual productivity value used to calculate the RCAF-5. All averages cover 5 years, are geometric and are applied on a "2-year lag" basis. Average productivity change for the period 1982 through 1986 inclusive was used for the second, third and fourth quarters of 1989. Average productivity change for the period 1983 through 1987 inclusive was used for the calendar year 1990. Average productivity change for the period 1984 through 1988 inclusive was used for the calendar year 1991. Average productivity change for the period 1985 through 1989 inclusive was used for the calendar year 1992. Average productivity change for the period 1986 through 1990 inclusive was used for the calendar year 1993. Average productivity change for the period 1987 through 1991 inclusive was used for the calendar year 1994. Average productivity change for the period 1988 through 1992 inclusive was used for the calendar year 1995. Average productivity change for the period 1989 through 1993 inclusive was used for the calendar year 1996.

Column (6) shows the RCAF-5, that is, the RCAF (Adjusted) calculated on a "20 Consecutive Quarter" basis.