ALJ/LEM/jt

Decision 90 07 053 JUL 18 1990

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Investigation for the purposes of considering and determining minimum rates for transportation of sand, rock, gravel, and related items in bulk, in dump truck equipment between points in California as provided in Minimum Rate Tariff 7-A and the revisions or reissues thereof.	Case 5437, OSH 325 (Filed April 17, 1985) Case 5437, OSH 323 (Filed October 1, 1984) Case 5437, Pet. 327 (Filed May 1, 1985) Case 5437, Pet. 329 (Filed June 6, 1985)
And Related Matters.	Case 9819, OSH 75 Case 9820, OSH 25 (Filed April 17, 1985) Case 9819, Pet. 79 Case 9820, Pet. 29 Case 5432, Pet. 1060 (Filed June 6, 1985) Case 9819, OSH 76 Case 9820, OSH 27 (Filed May 1, 1985)

(For appearances see Decisions 86-08-030 and 87-05-036.)

I N D E X

OPINION

Summary of Decision

This decision adopts a definition of "efficient dump truck carrier" to be used in the future gathering of costs upon which to base rates published in the Commission's three minimum rate tariffs (MRTs) - MRTs 7-A, 17-A, and 20. In brief, we find that the present method of basing costs on the experience of carriers who, in the engineering judgment of cost gathering experts, comprise the best evidence of carrier efficiency should be discontinued. The decision adopts the recommendation of the Commission's Transportation Division Staff (TD Staff), subject to certain conditions. The basic TD Staff recommendation is to use the costs of carriers who produce two million ton-miles of output annually. Some of the attendant conditions are that carriers share no more than a 10% common ownership with a shipper and/or do no more than 50% of their work for that shipper; own and operate at least one tractor for every ten (sets) of trailers; generate no more than $1 of purchased dump truck transportation for every $1.50 of total dump truck revenue; and generate at least $1 of dump truck revenue for every $2 of total transportation revenue.

The decision also adopts a procedure under which the profit factor contained in the three MRTs can be made to bear a rational relationship to the periodically changing financial conditions that affect dump truck carrier profitability. This procedure in essence retains the operating ratio as the measurement of profitability, but endorses the cost of capital measurement offered by the TD Staff as the means for determining a current appropriate operating ratio, and encourages parties to utilize that measurement for future rate adjustment proceedings, setting rates initially at a cost/rate relationship of 94%. Further, the decision announces the Commission's intent to make greater use of a flexible profit policy when changing business conditions indicate a need to set rate levels at a different operating ratio.

Background

This consolidated proceeding is being conducted for the purposes of considering methods and procedures through which effective dump truck minimum rate policy can be established, administered, and tested in practice.

By Administrative Law Judge's (ALJ) Ruling of December 28, 1989 two issues were identified as appropriate for inclusion in concurrent briefs to be filed in this proceeding:

1. Elements suitable for inclusion as profits in minimum rates, and

2. Factors to be considered in defining "reasonably efficient carrier" for cost and ratemaking purposes.

By subsequent ALJ ruling dated January 19, 1990, parties were instructed also to give consideration in their briefs to the manner in which cost gathering methodologies adopted by Decision (D.) 86-08-030 are to be performed and used when considered in light of the efficient carrier issue.

Briefs were filed by California Dump Truck Owners Association/California Carriers Association (CDTOA/CCA), Yuba Trucking (Yuba), Associated General Contractors of California (AGC), Californians For Safe And Competitive Dump Truck Transportation (CSCDTT), and by the TD Staff.

Eight days of public hearing were held on the issues of efficient carrier/profit before ALJ John Lemke in San Francisco between June and November 1989. Briefs were filed February 26, 1990.

I. Efficient Carrier

TD Staff

OSH 325 directs that hearings be conducted to determine a "methodology under which the costs that efficient dump truck

carriers incur can be readily gathered and used to develop new minimum rates."

In the past TD Staff has made use of data from all dump truck carriers in its development of minimum rates. Commission decisions have characterized such rates as those of "efficient" carriers, without precisely defining the term.

TD Staff believes it has developed a methodology for gathering costs from efficient carriers. It proposes to employ an economic definition, i.e. the production of a firm's output at a low average cost, relative to other firms. TD Staff asserts that through economic and statistical analysis, an efficient carrier has been determined to be one with sufficient output to realize the available scale economies in the dump truck industry. This output was found to be at least two million ton-miles annually. (A ton-mile is a frequently used measure of output in transportation. The ton-mileage for a shipment is found by multiplying the tonnage hauled by the one-way distance it is moved.) TD Staff believes its approach to be appropriate for several reasons:

1. The efficient carrier is defined precisely, allowing for its identification through measurement of its costs and output.

2. This is a "holistic" methodology, measuring the efficiency of the entire firm, rather than the cost of each individual input. This approach recognizes that if the carrier is able to save money on one particular input, but consequently must spend more on another input, there is no efficiency gain.

3. The efficient carrier set identified by TD Staff includes 226 firms. TD Staff contends this is a much more compact data set from which to elicit minimum rate information than the current universe of over 8,000 dump truck permit holders. This should help to insure that data can be "readily gathered," as well as make the entire ratemaking process more efficient.

4. As this efficient carrier set includes the largest firms in the industry, the quality of the cost data provided should be good. Larger firms tend to have their financial records kept by professional bookkeepers and accountants, at least for tax purposes.

5. TD Staff's definition of efficiency directs its research efforts to those firms who produce effectively while using up less resources in the state's economy than other carriers.

Witness Jack Fulcher prepared Exhibit 104. He considered using a data base constructed from the annual reports filed with the Commission. These include carriers with revenues of $500,000 and more. However, the Class III carrier reports, covering firms with revenues of under $1,000,000, do not require the ton-mile information necessary for his study. Further, the requisite information was seldom submitted with the Class I and II carriers, with revenues from $1 million to $5 million, and revenues over $5 million, respectively, and when furnished, was often calculated incorrectly.

In October 1988 TD Staff sent a survey form covering output and financial experience during 1987 to 705 carriers. Criteria for inclusion in the set of surveyed carriers were that the firm had CPUC gross revenues of over $100,000 in 1986, and that more than 50% of those revenues were earned under the dump truck minimum rate tariffs (MRT). A second questionnaire was sent in December 1988 to those who had not responded. 406 survey responses contained usable data. These firms had operating revenues totaling 74% of all 1987 California MRT revenue earned by firms reporting at least $100,000 in CPUC income. The results of the survey are set forth in Table 1 below:

TABLE 1

1987 Dump Truck Revenues	Usable Responses (%)	Popu-lation (%)	Survey Total Group Revenues ($M)	Survey Average Ton-miles (M)
Over $10M	1	0*	48.6	113.04
$5-10M	3	2	70.8	48.31
$2.5-5M	7	5	106.0	27.17
$1-2.5M	17	15	114.5	10.52
$750K-1M	6	4	20.7	5.17
$500-750K	13	11	32.0	4.29
$250-500K	17	18	23.8	2.77
$100-250K	28	45	17.6	1.15
<$100K	8	-	2.1	.51
Total	100	100	423.3	7.24

*less than .5%

Fulcher reviewed published academic research to become familiar with motor carrier data bases used by other researchers. The following conclusions were derived from this review:

1. Efficiency is defined in terms of cost per unit of output, being either ton-miles or vehicle miles.

2. There are only slight scale economies in trucking, which are exhausted at low levels of output.

3. There is a point of optimal output or minimum efficient scale where economies are exhausted and an increase in output will not lower significantly the average cost of production.

4. Production characteristics such as average load or average length of haul both strongly influence efficiency.

Literature reviewed included an article by Merrill J. Roberts entitled "Some Aspects of Motor Carrier Costs: Firm Size, Efficiency and Financial Health," where the author defines

efficiency as low cost per vehicle mile, and concludes that there are no substantial economies of scale in the trucking industry. Fulcher also refers us to several subsequent articles, relating to transportation performed in India and Nigeria, affirming Roberts' basic conclusions about the lack of significant scale economies and the effect of operational characteristics such as average length of haul and other vehicle utilization intensity rates on firm efficiency, always defined as low average cost.

The witness determined from his survey that there is a very clear negative relationship between the level of output and the cost per unit of output, i.e. as output rises the average costs fall. This continues until about two million ton-miles, average cost being virtually constant beyond this range of production. Fulcher tested his visual observation of slight or no scale economies by performing several econometric regressions. The results of these tests confirmed his earlier conclusions. He thus concludes that firms producing over the two million ton-mile mark should be considered the set of "efficient carriers." This set of 226 carriers represents those firms who have achieved a sufficient scale of operation to absorb the available economies in the industry. The witness testified that this group is reasonably representative of the population of California dump truck operators, both in geography and in type of commodity hauled. Further, the group represents 90% of the trailers, 90% of the power units, and 88% of the employees of the 406 firms in the staff sample. Finally, because the survey sample represents 74% of all 1987 California MRT revenues earned by dump truckers having at least $100,000 in reported CPUC revenue, the efficient carrier group itself contains about two-thirds of the inputs used in California's intrastate for-hire truck services.

TD Staff maintains that its method of determining efficiency is one which compares total costs, rather than taking the lowest cost for each category of expense. Under this latter

approach, the overall cost of production may suffer, since a low maintenance cost carrier may be one who scrimps on maintenance, causing equipment to wear more quickly.

The set of 226 efficient carriers recommended by TD Staff includes firms who subcontract much of their hauling. It is TD Staff's position that a subcontract is simply another input to the trucking business. Eight percent of the efficient carrier set employed subhauling for more than 90% of their hauling, while 41% used subhaulers for less than 10% of their hauling.

Yuba

Yuba asserts that our adopted definition of efficient dump truck carrier must exclude carriers whose costs cannot be readily gathered, or periodically updated, with relative ease. Yuba states this is because of the requirements set forth in D.85-04-095. Further, Yuba maintains the definition should follow the guidelines established in D.86-08-030 for identifying efficient carriers. Thus, Yuba's proposal excludes proprietary carriers, carriers with less than a certain amount of dump truck revenue per year, carriers with more than a certain amount of mixed operations, and carriers with inappropriate, inaccurate, or unauditable cost data. These criteria have led Yuba to suggest the following definition of "efficient carrier":

A. A carrier who:

1. Is not an owner-operator, unless required to file an annual report;

2. Is required to file an annual report with the Commission; and,

3. Shares no more than a 10% common ownership with a shipper and/or does no more than 50% of its work for that shipper.

B. A carrier who, in addition to the above, meets two of the following criteria:

4. Owns or operates at least one tractor for every ten sets of trailers.

5. Generates no more than $1 of purchased dump truck transportation for every $1.50 of total dump truck revenue.

6. Generates at least $1 of dump truck revenue for every $2 of total transportation revenue.

Yuba's prepared testimony (Exhibit 109) includes a recap of 1987 annual report information for 94 dump truck carriers. This information is summarized in Table 2 below.

TABLE 2

1987 Dump Truck Facts

Item	Total Amount
Number of Carriers	94
Net Worth	77,644,000
Gross Revenue	392,792,000
Expenses	
Purchased Transportation	191,682,000
Other Expenses	
Overhead Wages	28,768,000
Overhead Other	16,748,000
Driver Labor	51,488,000
Fuel & Oil	21,918,000
Repairs & Maintenance	39,397,000
Tires	5,993,000
Insurance	10,118,000
Depreciation	15,179,000
Tax & License	5,351,000
Subtotal-Other Expenses	194,962,000
Total Expenses	386,644,000
Net Income	6,148,000

Source: CTA "Financial Profile (1987), CTA "Financial Who's Who" (1987)

Yuba asserts that the above data offers a cornucopia of cost facts, and took only a few hours to prepare. It believes that if the information contained in this type of report is limited to

carriers meeting its recommended definition of efficient carrier, very little more data is needed for rate-setting purposes.

Yuba offers the following comments with respect to the various elements of its recommended definition of efficient carrier:

The alter-ego requirement allows a certain amount of common ownership and proprietary operations but eliminates carriers who are primarily owned and operated by shippers.

The ownership requirement eliminates brokers and carriers who rely heavily on pullers and full-unit subhaulers. Brokers and trailer merchants are dump truck carriers, but their costs of fuel, tires, repairs, labor, equipment, overhead, and insurance are different from carriers whose primary business is operating dump trucks.

The purchased transportation requirement further serves to eliminate brokers and carriers who rely heavily on pullers and full-unit subhaulers by establishing a cut-off point of no more than two-thirds purchased transportation.

The dump truck revenue requirement eliminates carriers engaged primarily in other trucking activities, such as cement, petroleum, general freight, logs, heavy equipment, hazardous waste, and agricultural items by establishing a cut-off point of no more than 50% other-than-dump-truck revenue.

Yuba believes strongly that carriers with mixed operations should not be peremptorily eliminated from the definition of efficient carrier for three reasons:

1. The real issue in this element is the extent to which, not whether, mixed operations should be included. Yuba's proposal establishes realistic limits for including carriers with mixed operations and thus avoids the problems which were encountered in connection with the labor cost survey, i.e. carriers engaged predominately in other than dump truck transportation.

2. Usable input data must take into consideration not only the accuracy and reliability, but the size of the data pool. Using some carriers with mixed operations will insure a sufficiently large data pool for the gathering of useful information for ratemaking purposes.

3. Yuba's definition of efficient carrier would be applied only to five cost categories: Labor, Tires, Repairs and Maintenance, Fuel and Insurance. Remaining cost categories would be based on information gathered from other sources, such as depreciation (determined from the Department of Motor Vehicles), tax and license costs, and indirect expenses. Thus, Yuba insists, using mixed carrier costs will not result in distorted figures for the five categories mentioned above.

Yuba notes that cost information gathered from carriers filing annual reports amounts to 80% of total costs: 40% labor, 15% fuel, 12.5% repairs and maintenance, 5% tires, and 7.5% insurance. This leaves only three cost items to be determined from other sources: depreciation 8%, tax/license 2.5%, and indirect expenses 10%.

CSCDTT

CSCDTT concurs with and recommends adoption of the Yuba proposal. CSCDTT states that Yuba's proposal contemplates scale economies by its requirement that carriers in the efficient carrier set be required to file annual reports. It believes that costs can be readily gathered because they are derived largely from annual reports. Further, since annual reports are public information, the data is available to everyone, while staff surveys are secret and confidential and cannot be used effectively by other parties. Lastly, CSCDTT asserts that annual report data is much simpler than questionnaire information to verify.

CDTOA/CCA

The CDTOA/CCA proposal regarding efficient carrier is contained in Exhibits 112 and 114 and in the oral testimony of witnesses Martens and Jenkins. Basically, CDTOA/CCA would define efficient carrier as it believes the Commission has previously done in D.72418, dated May 16, 1967 in Case (C.) 5432 (67 CPUC 160, 169-170), in connection with the setting of minimum rates for the transportation of trailer coaches and portable campers:

> "As hereinbefore stated, in minimum rate making the Commission considers the costs of performing the services that would be incurred by a reasonably efficient carrier. Those costs are developed by a synthesis of estimates of certain cost factors based upon assumptions. Such assumptions include: The carrier is engaged principally in the transportation of the particular commodities between all points which will be covered by the rates; it will transport a typical cross-section of all such commodities along the routes ordinarily used by carriers actually engaged in the transportation; in performing the services it will utilize equipment actually used by the carriers and which is typical and best suited for providing the particular services; it is in a favorable (although not necessarily the most favorable) bargaining position to purchase equipment, materials, supplies and services; it enjoys sufficient traffic so as to have reasonably efficient utilization of its equipment (this is called use factor); it is reasonably situated with respect to the traffic it handles; its administrative expenses would be typical for a carrier having the utilization of equipment assumed; it obeys all laws and regulations; and it must compete in the same labor market as other carriers actually engaged in such transportation."

CDTOA/CCA maintains that the origin and concept of the phrase "reasonably efficient carrier" is in Public Utilities (PU) Code §§ 3502 and 3662. As paraphrased by CDTOA/CCA, these sections state the following:

PU Code § 3502:

1. To preserve use of the public highways consistent with the needs of commerce;

2. To assure just and reasonable rates for dump truck transportation provided upon the public highways; and

3. To allow dump truck traffic to move over such highways in a manner that meets reasonable public demands by providing for the regulation of rates at a sufficient level so that adequate and dependable service by dump truck carriers shall be maintained.

PU Code § 3662. This section states that the Commission shall give due consideration to:

1. The cost of all of the transportation services performed, including length of haul, any additional transportation services performed, or any accessorial service;

2. The value of the commodity transported; and

3. The value of the facility reasonably necessary to perform the transportation service.

CDTOA/CCA urges that the combination of PU Code §§ 3502 and 3662 define the Commission's duties and obligations in establishing dump truck rate levels. It refers us to the testimony of witness J. M. Jenkins, an engineer with many years' experience in the development of costs for setting minimum rates:

> "Now, there are many variable costs in a cost study such as was made (in) dump trucks, and each cost factor had to be evaluated in light of reasonably efficient operations. So the sum total of the cost model became representative of a reasonably efficient carrier."

Thus, CDTOA/CCA suggests that determining and distinguishing "average" from "reasonably efficient" carrier costs is an

engineering judgment made after examination of carrier records and operations. Further, Jenkins stated that the lowest cost for a particular cost component is not generally the predominant criterion because the lowest cost does not necessarily equate with efficiency. In support of its contention that "efficient" does not necessarily correlate with lowest cost, CDTOA/CCA refers us to the definition contained in Webster's Third New International Dictionary:

> "marked by ability to choose and use the most effective and least wasteful means of doing a task or accomplishing a purpose; competent, marked by qualities, characteristics, or equipment that facilitate the serving of a purpose or the performance of a task in the best possible manner. Synonym EFFECTIVE."

CDTOA/CCA emphasizes that the basic premise of its definition is that minimum rates should be based upon the actual costs and performance factors of effective and competent carriers providing a specific construction material transportation service, in a localized area, using equipment best suited to provide the particular service, under loading, unloading, traffic congestion, and other existing conditions.

It suggests that a data base now exists in the form of its Demographic Survey to isolate or segregate the carriers for study, and that these carrier study groupings can be improved upon by a new survey, or another statistically credible sampling process.

Once the carrier groupings are ascertained, the costs gathered from the adopted cost gathering methodologies set forth in D.86-08-030 should be verified by cost engineers to assure that they represent reasonable carrier efficiency. Performance factors (terminal end times, load factors, revenue and nonrevenue hours, speed, etc.) must then be applied to principal categories of cost to arrive at total cost.

CDTOA/CCA objects to both the TD Staff's and Yuba's definitions of "reasonably efficient carrier." It notes that the set of 226 carriers identified by TD Staff includes many haulers of industrial dump truck commodities. For example, T&T trucking, 95% of whose revenue is from the transportation of other than construction-related commodities. This carrier's costs are significantly different from those of construction haulers, because T&T's hauls are not seasonal. The lengths of hauls performed by the carrier are much greater than those experienced by construction material haulers. Its trailers are light-weight aluminum, allowing about a 10% higher payload. Equipment and labor use factors are 1,000 or more hours greater annually than those of construction material haulers. Tire and engine lives are much higher, and fuel consumption much lower.

TD Staff's set of carriers includes several owned or controlled by shippers of the commodities transported. CDTOA/CCA notes that witness Lindeman of Yuba had summarized the objection to inclusion of these carriers by saying that the working conditions for shipper controlled carriers are different, costs are different, they tend to be given the most productive and cost-efficient work, and tend to have the highest profit level. Thirty-five of TD Staff's set of 226 carriers, CDTOA/CCA asserts, should be removed from the list because of one or both of the reasons set forth above. Moreover, CDTOA/CCA observes, depending upon whether one uses the percentage relationship of Yuba (67 + %) or CDTOA/CCA (60 + %), another 56 to 68 carriers should be removed from TD Staff's list because they are essentially brokers with a high percentage ratio of purchased transportation expense to total expense (Exhibit 109, p. 12; Exhibit 113, p. 3 and Appendix 1).

Jenkins testified, with respect to the use of costs determined from carriers with high percentages of purchased transportation, that it would lead to a great distortion of running costs such as fuel, tires, and maintenance and repair.

CDTOA/CCA also notes that TD Staff's ton-mile proposal excludes about 97% of the 8,000 permitted dump truck carriers; yet, these smaller carriers are the "workhorses" of the industry. CDTOA/CCA concedes that it is true that these 7,000 to 8,000 carriers do not file annual reports; and while many do not have sufficient records usable for cost information, many of them do, and it is the costs of these carriers which are representative of industry cost experience.

CDTOA/CCA maintains (and Yuba concurs) that TD Staff's two million ton-mile test of efficiency is not an accurate gauge of efficiency, i.e. a short-haul carrier has higher per mile costs than a long-haul carrier, but the cost differential has no necessary correlation with efficiency.

Witness Martens testified that the TD Staff's proposal does not take into consideration many industry demands. For instance, some hourly rated jobs require traveling only a few miles from origin to destination, but involve considerable delay in loading/unloading. Carriers can spend an entire productive day and log less loaded miles than a general freight over-the-road carrier would log in two or three hours. Many construction hauls involve job site service with difficult off-road conditions and hazards. A measure of loaded miles to ascertain efficiency has nothing to do with the efficiency of carriers performing this type of service for the construction industry. Some materials hauled and some job and terrain conditions which exist at loading/unloading sites require special equipment which may not be the most efficient on the highway, but is necessary for that job and is, therefore, efficient because of job condition requirements. Martens believes that TD Staff's recommended criteria place undue emphasis on information capable of being "readily gathered" and insufficient emphasis on "efficiency" per se.

CDTOA/CCA acknowledges that its proposal would involve a greater staff cost engineering effort than the proposals of TD

Staff or Yuba. This is so because its proposal would require field work by Commission personnel, involving essentially the same methods of determining efficiency as have been employed over the past several decades. However, the costing methodologies set forth in D.86-08-030 would be applied as far as possible, and the judgment of cost engineers utilized in determining which costs should be used. Assumedly, extreme costs - whether high or low - would be rejected in this analysis, as they are in most cost gathering determinations. CDTOA/CCA states that about $12,000,000 exists in the Transportation Rate Fund, with another almost $14,000,000 being held in surplus, which may be used in furthering this purpose. CDTOA/CCA urges that more cost engineers be engaged to perform necessary studies.

AGC

AGC recommends that Yuba's proposal be used in defining the efficient carrier. Moreover, AGC states that during the earlier hearings on cost gathering methodologies, there was not a high level of awareness among the parties of the significance of the "efficient carrier" and "readily gathered" issues. It urges that our decision on efficient carrier and profit factor also order hearings to review and revise adopted cost gathering methodologies to insure that they comply with the "efficient carrier" and "readily gathered" criteria, and also establish the "statistical validity" criteria for the methodology. For example, AGC notes, D.86-08-030 requires the Labor Cost Questionnaire to be sent to all dump truck permit holders. However, as described in the ALJ's Ruling of January 19, 1990, TD Staff believes that only labor costs developed from questionnaires received from efficient carriers should be used in the formulation of labor costs for ratemaking purposes. AGC states that this would involve a great expense in money and effort in which the vast majority of questionnaires would be mailed, completed, returned, and discarded in order to comply

with both D.86-08-030 and our adopted definition of "efficient carrier."

Discussion

CDTOA/CCA would, in essence, maintain the present method of employing costs gathered from those carriers deemed efficient in the engineering judgment of the cost gatherers, i.e. selecting data from carriers in the same manner as traditionally used, perhaps utilizing carriers selected from its Demographic Study, but in accordance with the methodologies set forth in D.86-08-030. However, CDTOA/CCA urges that its position be adopted with an eye to this Commission's decision on trailer coaches, campers, etc. as referred to earlier, where we stated that in minimum ratemaking the Commission considers the costs of performing the services that would be incurred by a reasonably efficient carrier.

The CDTOA/CCA approach would involve an inordinate and unnecessary expenditure of Commission staff resources in gathering the data to be utilized for cost and ratemaking purposes. Both the Yuba and TD Staff proposals will require a good deal less time and expense to produce the necessary data, being selected from potentially far fewer carriers. The recommendation of TD Staff is preferable to us over that of Yuba, and will be adopted, because it will provide a broader carrier base, consisting of about 226 carriers, before adjusting for conditions as discussed hereafter. TD Staff's group selection is based upon its decision to employ economic efficiency as the primary factor in carrier selection, while Yuba would draw information from dump truck carriers who file annual reports (those earning $500,000 or more), but would then filter these carriers through several conditions in arriving at its final cost data group. Thus, the cost data determined from TD Staff's recommended carriers will be much more readily gatherable than that determined under the CDTOA/CCA approach, and will be broader based than the cost data determined only from annual reports.

Some of the criteria suggested by Yuba as "filters" for finally selecting the carriers to fit our adopted procedure have merit. The alter-ego restriction will eliminate from cost gathering those carriers primarily owned and operated by shippers. This is a good idea because it will remove carriers who may have particularly favorable or advantageous transportation opportunities because of their relationship with their affiliated shipper. The equipment ownership criterion will remove brokers who rely very heavily on pullers and full-unit subhaulers. Yuba states that these brokers and trailer merchants, while dump truck carriers by definition, do not experience costs of fuel, tires, repairs, labor, equipment, overhead, and insurance the same as carriers whose primary business is operating dump trucks. We agree with this observation. However, Yuba's suggestion on this point is to exclude a carrier who does not own or operate at least one tractor for every ten (sets of) trailers. We believe that a more meaningful condition would be to adopt a criterion requiring that the tractor must be owned and operated by the prime carrier. We see this as insuring the removal of potential problems, e.g. a carrier buying several "junk" tractors, but not operating them.

The purchased transportation criterion will serve to further remove brokers and carriers who rely heavily on pullers and full-unit subhaulers, establishing a cut-off point of not more than 2/3 purchased transportation. Finally, the dump truck revenue requirement will remove carriers engaged primarily in other trucking activities.

We believe these conditions have merit and ought to be included in our adopted definition. And in addition, we will add one more condition, requiring that carriers receive at least one-half of their dump truck revenue from the transportation of construction commodities. This will insure that carriers with particularly favorable hauling circumstances generally found in interplant transportation are not automatically included in

construction material hauling. To include their significantly different (lower) repair and maintenance costs, tire costs, etc. would be unfair to those carriers heavily involved in the higher cost construction material hauling.

II. The Profit Factor

A stated purpose of OSH 325 et al. is to elicit evidence concerning:

> "3. A procedure under which the profit factor contained in dump truck minimum rates can be made to bear a rational relationship to the periodically changing financial conditions that affect carrier profitability."

TD Staff

TD Staff recommends that dump truck minimum rates be set at 100% operating ratio. It believes that minimum rates based on operating costs alone are sufficient to insure adequate profitability and efficiency in the dump truck industry. It further asserts that building profit into minimum rates is unnecessary; that it impedes the market from setting price and profit levels which reflect market conditions. TD Staff also alleges, through the testimony of Robert Wullenjohn, that minimum rates which include a profit encourage overinvestment, underproduction, and excess capacity, and prevents the market from adjusting to the appropriate number of carriers.

Wullenjohn testified, however, that if the Commission decides that a profit factor should be incorporated into dump truck minimum rates, such rates should be set at no lower than a 94% operating ratio. The witness has developed a Weighted Cost of Capital Methodology, contained in Appendix A to Exhibit 106. By use of a discounted cash flow model, the witness has forecasted that a 14.82% return on equity is required to properly capitalize

the industry. This was based upon an analysis of the largest publicly traded general commodities interstate haulers. By the risk premium model, a 16.11% return on equity is forecasted during 1990-1991 to properly capitalize the industry. For this analysis, the average annual difference between industry-earned return on equity and the return earned on risk-free T-bill investments is deemed representative of the risk premium appropriate for investment in trucking. He also calculated the industry average debt interest rate to be 14.33%, based upon a study of Class I, II, and III carriers. The results of Wullenjohn's analysis are depicted in Table 7 of Exhibit 106, set forth below.

Weighted Cost of Capital Calculation and Computation of Operating Ratio

Component	Cap Ratio	x	Cost	=	Wtd Cost
debt	29.78%		14.33%		4.27%
equity	70.22%		14.82%		10.41%
total	100.00%		atroc	=	14.67%
op margin = atroc* (rate base/op rev)				=	4.33%
operating ratio = 100 - op margin				=	95.67%

Component	Cap Ratio	x	Cost	=	Wtd Cost
debt	29.78%		14.33%		4.27%
eqty/(1-t)	70.22%		22.16%		15.56%
total	100.00%		btroc	=	19.83%
op margin = btroc* (rate base/op rev)				=	5.86%
operating ratio = 100 - op margin				=	94.14%

atroc = After-tax Return on Capital
btroc = Before-tax Return on Capital

As shown, the results yield a 14.67% after-tax return on capital, and a 19.83% before-tax return to capital. The witness testified that an operating ratio of 94 will yield an approximate profit, or return to capital, of 15%.

From his study, Wullenjohn determined four facts which he considers important:

1. The industry operating ratio is consistently above 92, the level upon which minimum rates have been traditionally developed.

2. The number of carriers in the industry has been increasing.

3. Industry constant dollar revenues have been increasing.

4. The percentage of authorities transferred and revoked is stable.

The witness infers from these facts that the industry has been experiencing growth, and that an industry average operating ratio greater than 92 has not had a negative impact upon the desirability of entering the industry.

Yuba

Yuba has listed 12 periodically changing financial conditions affecting dump truck carrier profitability. These include such categories as levels of inflation and interest rates, changes in personal and business income taxes and depreciation allowances and credits, levels of home building, commercial building and highway construction activity, and changes in operating costs.

Yuba asserts that annual reports are never audited by the Commission; consequently, unaudited data is never adjusted to reflect excess salaries, benefits, rents, depreciation, repairs, etc. Further, Yuba maintains that annual report operating ratios differ from operating ratios on which minimum rates are based. This is so, it alleges, because minimum rates are based on eight cost elements (labor, fuel, tires, repairs and maintenance, insurance, depreciation, tax and license, and overhead), plus a profit factor of 8%; whereas, the annual report of a typical dump truck carrier includes the same cost elements plus an additional

50% for the cost of purchased transportation, which already includes those same costs. Thus, Yuba argues, including the cost of purchased transportation when measuring profitability distorts the comparison between theoretical profits and real profits. The proper way to analyze annual reports, the carrier insists, is to exclude purchased transportation from both revenue and expense.

Yuba proposes that the best way to measure the profitability of dump truck carriers in these circumstances is to analyze the level of investment in the industry, i.e. low investment indicates low profit, high investment indicates high profit. Yuba concludes that the amount of annual investment is a valid indication of changes in inflation, interest rates, personal and business income taxes, depreciation allowances and credits, operating costs, business activity, competition, and new regulations and statutes. The following table from Yuba's brief demonstrates its approach to profit analysis:

How to Measure Profitability

Line	Item	Total Amount		
1	Number of Carriers	94		
2	Net Worth	77,644,000		
3	Gross Revenue	392,792,000		
4	Purchased Transportation	191,682,000		
5	Other Expenses	194,962,000		
6	Total Expenses	386,644,000		
7	Net Income	6,148,000		
8	1986 Operating Property	116,656,150		
9	1987 Operating Property	127,011,573		
10	1987 Investment	10,355,421		(L.9 - L.8)
11	1987 Investment Ratio		13.34%	(L.10 ÷ L.2)
12	1987 Profit Margin		1.57%	(L.7 ÷ L.3)
13	1987 Adjusted Profit Margin		3.06%	(L.7 ÷ [L.3 - L.4])
14	1987 Operating Ratio		98.43%	(L.6 ÷ L.3)
15	1987 Adjusted Operating Ratio		96.94%	([L.6 - L.4] ÷ [L.3 - L.4])
16	1987 Purchased Transportation Ratio		48.88%	(L.4 ÷ L.3)

Source: CTA "Financial Profile" (1987), CTA "Financial Who's Who" (1987)

Yuba professes that the virtue of using investment (L.10), Operating Property (L.8 and L.9), and Net Worth (L.2) to measure profit is that these figures are not subject to year-end manipulations and hence are reliable for the purpose intended.

The carrier notes that the above table shows 1987 investment was about 13% of net worth, and was 68% greater than pre-tax operating income. It believes these are signs of high profitability, a possible sign of over-expansion, and proof that operating ratios are a poor measure of profit. The profit margin shown above is 1.57%. Yuba points out that such an anemic profit level does not justify, and could not produce the kind of investment shown for the same year. Yet, Yuba states, the investment figure is accurate, representing the depreciable property acquired by carriers during the year. However, it believes the profit factor is diluted by 50% because purchased transportation is treated as an expense, and is distorted by an unknown amount by tax avoidance and tax deferrals. Thus, Yuba urges that we adopt the "Investment Ratio", and not the Operating Ratio, as the primary indicator of dump truck industry profitability.

Further, Yuba urges that the profit level be flexible. That is, the Commission should consider current business conditions and reduce the profit level when the construction industry is beset by adverse (recessionary) conditions.

AGC

AGC recommends that elements suitable for inclusion as profit in minimum rates be limited to income or business taxes, interest expense, and return on equity. AGC is unclear whether the mandate contained in D.85-04-095 calling for "...a procedure under which the profit factor contained in dump truck minimum rates can be made to bear a rational relationship to the periodically changing financial conditions that affect carrier profitability" has been the subject of this set of hearings, or if it will be

considered in the ratemaking phase. If the answer to this question is that this decision will rule on the above-described issue, then AGC supports the Yuba proposal. (This decision will adopt such a profit-measuring procedure.)

CSCDTT

CSCDTT believes a flexible profit margin in minimum rates should be based on three factors: (1) Profitability, as determined by the Investment Ratio (the Yuba proposal), (2) Operating Ratios, if adjusted by the removal of purchased transportation and used as a guideline with other indicators, and (3) What is best for consumers in light of business circumstances, as determined by the Commission. CSCDTT observes that a flexible profit margin would allow the Commission to recognize increases in underlying costs, while at the same time granting an increase less than the amount otherwise warranted, by reducing the profit margin percentage.

CSCDTT suggests that in employing a flexible profit, the Commission also consider dump truck industry enforcement activity, rate deviation activity, and the number of dump truck permits, regular and seasonal, applied for and granted in the previous year. It believes that an increase in undercharging, deviations, and permit applications might be taken as a sign that profits are too high; while an absence of such activity might justify an increase in the profit margin. As with the Yuba proposal, CSCDTT proposes no formula for evaluating these indicators, but believes that the Commission has the means to establish a profit margin which satisfies the needs of carriers and shippers.

CDTOA/CCA

Through the exhibits and testimony of witnesses Lautze and Martens, CDTOA/CCA recommends that the historical operating ratio of 92% be maintained. Lautze testified that in the past he participated in studies to determine a correct level of capitalization for the industry, and concluded that a return on equity of between 15% and 18% was proper, based upon the involved

risk confronting carriers. This opinion was not based upon a current study of the industry. Lautze stated that failure to provide a profit margin in rates would seriously curtail the ability of the industry to attract capital, both debt and equity. He concludes that the use of the operating ratio, coupled with an evaluation of return on equity, is still the most effective way to measure the financial results of the industry's overall operations.

Lautze, basing his analysis upon several decades of financial and accounting experience and counseling, concluded that none of the changing financial conditions mentioned by Yuba are taken into consideration through use of the investment ratio methodology suggested by Yuba. He also concluded that several of the conditions, such as inflation, depreciation, operating costs, and changes in rates and rules are taken into consideration in measuring operating ratio and return on equity. Several other financial conditions, such as building activity, commercial building activity, and highway construction activity are not taken into consideration under the operating ratio and return on equity measurements.

The witness furnished certain illustrations of property acquisitions, noting how certain circumstances which commonly occur in the dump truck industry distort any conclusions which might otherwise be arrived at when attempting to employ the investment ratio as a measure of profitability. These illustrations, contained in Appendix 1 to Exhibit 126, are set forth below.

ILLUSTRATIONS OF PROPERTY ACQUISITIONS

Acquisition of Tangible Property

I Addition to Tangible Property $500,000
Fully Financed

Entry	Dr.	Cr.
Tangible Property	+ $500,000	
Increase in Debt		+ $500,000
Change in Equity	None	

II Addition to Property
Carrier provides down payment

Entry

Tangible Property	+ 500,000	
Cash Down Payment		+ 100,000
Increase in Debt		+ 400,000
Change in Equity	None	

III Addition to Property
Including Trade-In Allowance $150,000 - Book Value of Trade - $50,000

Entries

(1) Tangible Property	+ 500,000	
Trade-In Allowance		150,000
Increase in Debt		350,000
(2) Trade-in Allowance	150,000	
Tangible Property		50,000
Gain on Trade		100,000

Net Result -
Increase in Tangible 500,000 - 50,000 = $450,000
Increase in Operating Income 100,000

(3) Provision for Income Taxes	40,000	
Accrued Taxes		40,000

Final Result
Increase in Equity 100,000 - 40,000 = $ 60,000

Lautze concludes that these typical situations, when treated under the accepted accounting principles and procedures employed in the dump truck industry, render an investment ratio measurement methodology meaningless.

Lautze recommended adoption of a higher return on equity and a lower operating ratio (15% to 18% for ROE and 92% for OR), noting that while dump truck rates anticipate a 92% OR, the actual results over a 12-year period range from 96 to 99%, with about 97% as an average (Exhibit 106, p. 10, Graph 3). The ROE result was corroborated by the 1987 ROE calculated by TD Staff for its carrier study group, the return being calculated at 8.68%, about 6 percentage points below the minimum necessary to maintain capital in the industry. Lautze attributes this failure to achieve the desired profit level to regulatory lag and inflation. He observed that failure to include a (reasonable) profit in rates would have an immediate detrimental effect on underlying carriers (owner-operators) comprising the majority of the industry. This is because rates required to be paid to underlying carriers are based upon a percentage of the minimum rate, and not upon some higher rate which might be paid to an overlying carrier.

Other Parties

Southern California Rock Products Association (SCRPA), an association of the five largest rock, sand, and gravel producers and between 20 and 30 smaller producers, opposes the implementation of no-profit minimum rates. It believes that such rates would lead to cutthroat, unsafe, and unreliable trucking which would be highly detrimental to the industry.

SCRPA's transportation manager, A. Taylor Reid, testified that members shipped 47 million tons of aggregate materials in California at an average transportation cost of approximately $3.50 per ton. This is about 26% of the total California aggregate market. About 80 to 85% of this tonnage is moved by for-hire dump truck carriers. Reid stated that there is a trend among SCRPA

members toward for-hire, rather than proprietary trucking. The witness proposed no specific profit level, but stated that rates must take into consideration the cost of providing service, the benefit to the consumer, risk, and the ability of the carriers to continue to provide services on a long-term basis.

RMC Lonestar is the largest supplier of aggregates in northern California. Its manager of Sales Administration stated that annual transportation charges, whether paid by RMC Lonestar or its consignees, amount to about $30,000,000. He testified that his company finds the present method of economic regulation fair and easy to use in marketing its products. The company does not believe in reducing minimum rates to a level where a reasonably efficient carrier cannot recover costs, replace equipment when prudent, conduct safe operations, and earn sufficient profit to make it worthwhile to continue in business.

Ronald D. Johnston is president of California Asphalt Pavement Association (CAPA), an association of producers of "hot mix asphalt" in southern California. He testified that its members annually ship 11,000,000 tons of this product, paying transportation charges to California dump truck carriers of about $30,000,000. Sales revenues for this product range annually between $220,000,000 and $275,000,000.

CAPA members believe the economic regulation of this industry is highly desirable, and that the minimum rate system of regulation provides a level of stability which has been advantageous to shipper members as well as to the dump truck carriers providing the service. CAPA urges that minimum rates be set at levels which will recover reasonable costs of operation, will service debt obligations to modernize equipment, pay taxes, and have something left over to compensate carriers for risk.

Evidence on profit levels was also presented by Redwood Reliance Peterbilt, a wholly owned subsidiary of Redwood Reliance Sales Company which is a holding company engaged in the

distribution of Reliance trailer products. Redwood Reliance Peterbilt is also dealership for the sale of Peterbilt trucks. Its General Manager, Jackson Woodward, stated that the company views no-profit rates as a means of proliferating undesirable, second-rate service and as a major deterrent to the ability of carriers to finance equipment acquisitions. Jackson testified that if rates are set at levels which do not allow a profit, there will be a significant credit crisis for dump truck carriers.

No shipper or shipper association appeared in these proceedings supporting no-profit rates, or any other level of rates which would not allow carriers a reasonable profit.

CDTOA/CCA calls our attention to D.89-09-104, dated September 27, 1989 in this proceeding. There, the Commission adopted a three-tier rate deviation procedure for dump truck transportation. CDTOA/CCA emphasizes that applications under these procedures are very simple to prepare and expedient to process. They allow either an automatic 10% deviation from the minimum rate, or, alternatively, a deviation which recovers 105% of variable costs (including insurance). A significant rationale for the adoption of these deviation procedures, CDTOA/CCA points out, was that a 6 to 8% profit factor was built into the minimum rates so carriers would nearly recover operating costs.

Discussion

Parties are in general agreement that carriers must earn a profit in order to maintain capital in the industry; otherwise, capital will be sold and invested elsewhere to earn a better return.

Operating profit is the difference between operating revenues and operating expenses. These profits are paid to the owners of capital who are either debt or equity holders. The cost of debt capital is interest paid on loans to debt holders, who have the first claim on operating profits. After debt costs are paid from operating profits, income taxes are paid. Any remaining

amount is paid to equity holders. This remaining amount is net profit. The net profit required to maintain equity capital is the required return to equity holders.

The Commission has traditionally included in minimum rates for dump truck transportation a profit factor of 8%, i.e., set rates at a cost/rate relationship of 92%. The cost of capital is high in the dump truck industry. Eighty-nine percent of the carriers in this industry earn less than $100,000 annually (Exhibit 106, p. 8, Graph 1). Moreover, the smaller the carrier, the higher the cost of debt. Those earning less than $500,000 experienced an average debt cost during 1987 of 13.87% (ibid., p. 18), while smaller carriers currently financing used equipment must pay as high as 18% to 20% (ibid., p. 19).

After consideration, and based upon the evidence of carrier and shipper interests heavily involved in the performance and receipt of services in the dump truck industry, we will reject the primary recommendation of TD Staff to adopt a no-profit minimum rate program. Instead, we will adopt a flexible profit procedure based upon the methodology employed by TD Staff as set forth in Exhibit 106, Appendix A, and discussed supra. This procedure, requiring a measurement of the weighted cost of capital forecasted in the dump truck industry, and then converted to an appropriate operating ratio, should be adopted in connection with the use of cost information determined from the efficient carrier group adopted by this decision.

The procedure will employ the use of data which may be "readily gathered" by parties, and can be periodically updated and applied in light of both the underlying dump truck costs and the varying transportation circumstances that exist within the state. Moreover, the procedure contains the ability to inject the desired flexibility suggested by some of the parties to this proceeding.

We find the methodology employed by TD Staff to be appropriate for measuring periodically changing capital costs.

The dump truck industry may be economically riskier than general freight, but we believe that this risk is accounted for in the determination of annual equipment use hours and driver hours to be used in establishing costs and rates. Thus, the cost/rate relationship of 94% recommended by TD Staff will be appropriate for setting minimum rates in the three MRTs.

It should be noted that we have in the past attempted to inject a measure of flexibility into our ratemaking when confronted with unusual business circumstances experienced by this industry, (See, for example, D.82-10-028, dated October 17, 1982 in C.5437, Petition 315, et al.) In that decision we authorized increases in MRTs 7-A, 17-A, and 20 of 5%, although the best evidence indicated that considerably greater increases were warranted based upon increased operating costs. We adopted the lesser increases because of the reduced level of economic activity experienced in the construction industry over a two-year period. The procedure adopted here will give more precise measurement to actual current costs of debt and equity, when parties desire to bring evidence of changing capital costs to the Commission's attention.

The "investment ratio" methodology urged by Yuba is an interesting concept. We applaud Yuba for offering the procedure for our consideration. It represents the kind of input we desired when initiating this proceeding. But it has been successfully challenged by CDTOA/CCA witness Lautze on the basis of its lack of usefulness in certain circumstances, i.e. those situations described in Lautze's Exhibit 126, and should be rejected.

In sum, we will continue the use of the operating ratio method of developing rates for these three tariffs, basing rates initially on a cost/rate ratio of 94%. Parties desiring to bring evidence of changed capital costs to our attention may do so by filing an appropriate petition, using the methodology employed by TD Staff in its Exhibit 106, and Appendix B to this decision. Further, we will continue to be influenced, in considering future

requested rate adjustments in these tariffs, by the economic circumstances currently experienced in the construction industry.

III. Use of Efficient Carrier Group in Cost Gathering

In the ALJ's Ruling of January 19, 1990 the parties were asked to discuss how costs are to be gathered in light of the adopted efficient carrier issue.

TD Staff and Yuba believe it is the Commission's intent that costs be based only on those of the efficient carrier group. We concur.

Had we determined the set of efficient carriers found by this decision at the outset of this proceeding, it is unlikely we would have arrived at some of the cost methodologies established in D.86-08-030. Some of those cost areas, particularly the labor cost survey, should be amended in order to comport with our decision here setting forth the definition of "efficient carrier." Perhaps these amendments can be done by ex parte action, through the workshop process. We encourage this approach by the parties to the maximum extent possible in order that this proceeding in its dealing with construction commodities can be quickly finalized. Parties will be given an opportunity to request a hearing on modification of D.86-08-030's cost methodology if they believe hearings are required.

Comments

In accordance with PU Code § 311, the ALJ's proposed decision was mailed to appearances on May 31, 1990. Comments were received from Yuba, AGC, and TD Staff. A reply to comments was filed by CDTOA/CCA.

Yuba's comments consist generally of a vituperative tirade against the proposed decision, the TD Staff's work product, and, in particular, the ALJ. The comments do not contain supporting findings or conclusions, as required by Rule 77.4.

AGC notes that this set of hearings was held to define efficient carriers in order to readily gather costs and establish

appropriate minimum rate tariffs for use by those carriers. It comments that by essentially continuing the present method of cost gathering, the proposed decision concentrates on defining "efficient carrier" while ignoring the "readily gathered" requirement. AGC supports the Yuba proposal concerning efficient carrier.

Concerning profit, AGC believes the proposed decision did not establish a procedure under which the profit factor can be made to bear a rational relationship to the conditions affecting profitability, as required by the Order Setting Hearing. AGC supports Yuba's proposal.

TD Staff urges that the proposed decision be modified with respect to "efficient carrier," and states that the finding therein that costs of owner-operators are excluded from the staff proposal is incorrect. Further, TD Staff calls our attention to Table 6 of Exhibit 104, which indicates that the 226 carriers in the proposed efficient set use approximately 2,517 full-time subhaulers, which accounts for more than half of the labor used by the efficient carriers. Thus, TD Staff maintains, the costs of a significant portion of the industry owner-operator population are represented in the efficient carrier set, because their activities are an inherent part of the costs of the carriers who contract for the hauling of two million ton-miles of output or more annually.

TD Staff observes that the proposed decision, in adopting primarily the CDTOA/CCA recommendation, relies upon a definition contained in a 1967 decision dealing with transportation not involving dump truck carriers. Further, TD Staff notes that the definition was not based upon evidence presented during the hearings, and may not be based upon circumstances similar to those found in the dump truck industry.

With respect to the profit issue, TD Staff continues to urge adoption of a no profit minimum rate.

CDTOA/CCA in its Reply to Comments objects to TD Staff's contention that its definition includes the costs of owner-operators because some of the prime carriers composing the 226 carrier efficient set use owner-operators.

After consideration, we believe the recommendation of TD Staff, subject to the five conditions contained in the proposed decision, should be adopted for purposes of this decision dealing with efficient carrier. We are impressed with the "holistic" approach of this proposal, i.e. applying to the entire cost of production experienced by the firm, rather than those of individual inputs. Further, we are greatly concerned here with having costs readily gathered to the maximum extent possible. Using data from TD Staff's set of 226 carriers, as adjusted, will achieve this end to a much greater extent than would be possible under the method recommended in the proposed decision. Finally, we are persuaded that a significant portion of owner-operators will be represented in TD Staff's recommended set, as more than half of the labor for this group is performed by subhaulers. The set of carriers recommended by TD Staff is different from that urged by Yuba, being greater in number, by reason of reporting average operating revenues of $307,000 as shown in Table 7 of Exhibit 104.

The proposed decision expressed concern over the efficient carrier issue being compatible with our thrice-affirmed cost decision, D.86-08-030. However, that issue is not of primary concern to us. In adopting the TD Staff recommendation, as amended, we are mindful that the already adopted cost methodologies will, in some respects, need to be amended. We will offer parties the opportunity for hearing on those methods by our order in this decision.

Our decision here will reflect our adoption of TD Staff's recommendation, with conditions, rather than the recommendation of CDTOA/CCA urged by the ALJ.

Yuba criticized the adoption of the cost of capital methodology recommended by TD Staff as "inscrutable." CDTOA/CCA accepts the methodology as workable. AGC supports the Yuba proposal. The method is approximately the same as that utilized in connection with this Commission's regulation of fixed utilities. The method is universally recognized by Commissions and parties throughout the state and country. In the circumstances it provides the best method of recognizing and updating costs of capital, and converting those costs to a current appropriate operating ratio.

Findings of Fact

1. About 90% of the carriers who perform the transportation services involved here are owner-operators who drive their own equipment, operating principally as subhaulers.

2. Few, if any, owner-operators are required to file annual reports; few produce two million ton-miles of output annually. Costs of these carriers cannot be readily gathered.

3. An efficient dump truck carrier is one which provides at least two million ton-miles of output annually.

4. TD Staff's proposal concerning efficient carrier will produce a broader base for analysis than that proposed by Yuba.

5. The definition contained in Finding 3 is the most appropriate for use in our adoption of a definition of "efficient dump truck carrier" for the purposes of this proceeding, provided the following additional conditions are included therewith:

   a. The carrier shares no more than a 10% common ownership with a shipper, and/or does no more than 50% of its work for that shipper.

   b. The carrier owns and operates at least one tractor for every ten sets of trailers.

   c. Generates no more than $1 of purchased dump truck transportation for every $1.50 of total dump truck revenue.

d. Generates at least $1 of dump truck revenue for every $2 of total transportation revenue.

e. Receives at least one-half of its dump truck revenue from the transportation of construction materials.

6. Dump truck carriers require enough revenue from the assessment of rates to be able to attract capital. Basing rates on an operating ratio of 100% would not provide carriers with that ability.

7. There is no shipper support for adoption of a level of no-profit minimum rates in MRTs 7-A, 17-A, and 20. Evidence presented by shippers supports the continued maintenance of rates which include sufficient profit to attract capital.

8. The cost of capital methodology presented by TD Staff is a reasonably useful procedure for measuring changing cost of capital conditions in the transportation industry.

9. Based upon the cost of capital measurement employed by TD Staff, rates in MRTs 7-A, 17-A, and 20 will be reasonable if developed at a cost/rate relationship (operating ratio) of 94%.

10. The adopted Weighted Cost of Capital Methodology set forth in Appendix B will provide parties desiring to analyze changing costs of capital a reasonable means of doing so, and of determining an appropriate current cost/rate relationship for use in setting minimum rates for dump truck carriers.

Conclusions of Law

1. The definition of "efficient dump truck carrier" set forth in Findings of Fact 3 and 4 and restated in Appendix A should be adopted for the purpose of gathering costs in connection with the transportation of construction materials under the provisions of MRTs 7-A, 17-A, and 20 and reissues thereof.

2. Minimum rates named in MRTs 7-A, 17-A, and 20 should be developed in the future at a cost/rate relationship of 94%.

3. The cost of capital procedure set forth in Appendix B should be utilized by parties desiring to offer evidence in the future concerning changes in costs of capital, the impact thereof upon carriers performing transportation services under MRTs 7-A, 17-A, and 20 and reissues thereof, and the determination of appropriate current cost/rate relationships.

4. The cost methodologies contained in D.86-08-030 should be reexamined in light of our decision here.

O R D E R

IT IS ORDERED that:

1. "Efficient dump truck carriers," for purposes of determining costs and setting minimum rates for publication in Minimum Rate Tariffs (MRTs) 7-A, 17-A, and 20, are those described in Appendix A to this decision.

2. Minimum rates named in MRTs 7-A, 17-A, and 20 and reissues thereof shall in the future, until order of this Commission, be developed at a cost/rate relationship of 94%.

3. The Weighted Cost of Capital Methodology set forth in Appendix B shall be used by parties for purposes of measuring changing financial conditions involving the cost of capital, and for setting minimum rates in MRTs 7-A, 17-A, and 20.

4. The cost methodologies contained in D.86-08-030 shall be reexamined in light of this decision. The ALJ in this proceeding shall hold a prehearing conference to determine whether any necessary modifications to the cost methodologies can be agreed upon in workshops or whether hearings are required.

This order becomes effective 30 days from today.

Dated JUL 18 1990, at San Francisco, California.

G. MITCHELL WILK
President
FREDERICK R. DUDA
STANLEY W. HULETT
JOHN B. OHANIAN
PATRICIA M. ECKERT
Commissioners

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY

NEAL J. SHULMAN, Executive Director

APPENDIX A

Definition of "Efficient Carrier"

An efficient dump truck carrier is one producing at least two million ton-miles of output annually.

The following conditions shall be observed in the development of costs of efficient dump truck carriers:

a. The carrier may share no more than a 10% common ownership with a shipper, and/or do no more than 50% of its work for that shipper.

b. The carrier owns and operates at least one tractor for every ten sets of trailers.

c. The carrier generates no more than $1 of purchased dump truck transportation for every $1.50 of total dump truck revenue.

d. The carrier generates at least $1 of dump truck revenue for every $2 of total transportation revenue.

e. The carrier receives at least one-half of its dump truck revenue from the transportation of construction materials.

(END OF APPENDIX A)

THE WEIGHTED COST OF CAPITAL METHODOLOGY

The operating ratio sufficient to cover taxes, debt and equity expense is a function of the industry's weighted cost of capital. The determination of the weighted cost depends upon industry debt and equity proportions and debt and equity rates. The weighted cost of capital model is based on the following formula:

$$BTROC = (ROE/(1-t))*(E/(D+E)) + (i)*(D/(D+E))$$

Where:
ROE = after tax profits divided by total equity.
t = industry average tax rate.
i = industry average debt interest rate.
E/(D+E) = proportion of the rate base held in equity.
D/(D+E) = proportion of the rate base held in debt.

To compute an appropriate profit margin requires the estimation of five industry averages. They are:

a) the California dump truck industry average income tax rate.

b) the California dump truck industry average debt interest rate.

c) the general trucking industry expected equity return rate.

d) the California dump truck industry average proportion of the rate base held in debt

e) the California dump truck industry average proportion of the rate base held in equity.

The weighted cost of capital determined above can be used to compute the appropriate operating ratio because return on capital (ROC) and OR are related in the following manner:

BTROC = (Revenue - expenses) / Rate Base

Where:
Rate Base = long term debt + equity.

Multiplying through the equation by Rate Base and dividing both sides by revenue yields the following.

Operating margin = (BTROC*(Rate Base))/Revenue

Operating ratio is simply: (1 - operating margin) = OR

(END OF APPENDIX B)