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FD-32760 (SUB21)

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ID-187963





Georgia-Pacific Corporation

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May 28, 1998

The Honorable Vernon A. Williams, Secretary  
Surface Transportation Board  
1925 K Street, NW  
Washington, DC 20423-0001

IN RE:  
Finance Project No. 32760 (Sub No. 21)

UNION PACIFIC CORPORATION, et al. --CONTROL AND MERGER--  
SOUTHERN PACIFIC RAIL CORPORATION et al. -- OVERSIGHT PROCEEDING

Dear Mr. Williams:

My name is Norman Langberg. I am Director of Logistics, Paper for Georgia-Pacific Corporation, which I will refer to in this statement as G-P. I submit this statement in support of the Arkansas, Louisiana & Mississippi Railroad Company's (AL&M) petition to the Board to grant an additional condition to the UP/SP merger to permit the BNSF to interchange traffic to and from the AL&M at Fordyce, Arkansas.

This condition is supported due to the absence of any meaningful competitive pressure constraining UP rates and inducing UP to offer acceptable service as a result of the Union Pacific/Southern Pacific merger. The new condition is needed to provide direct market place competition between BNSF and UP, so that UP has the incentive to offer better rates and service, and so that BNSF can provide an alternative to the UP when the UP does not provide acceptable rates and service. The KCS - the only current rail alternative to the UP is not fully competitive, since competition would have induced UP to offer better service, to provide adequate equipment, and to refrain from rate increases. The inability of KCS to do so, because of its geographic limitations, show the necessity of having access

to the BNSF – the only carrier with the system reach to compete effectively with the merged UP/SP system.

## **I. GEORGIA-PACIFIC SIZE**

Prior to the UP/SP merger, G-P had a choice of service and rates through AL&M from either of two major systems, the UP or the SP, and from the KCS, which offered more limited regional service. Georgia-Pacific has facilities on the AL&M at Crossett, and Fordyce, Arkansas. Preserving a choice of carriers was the goal that G-P supported when the AL&M in 1991 spent approximately \$6 million to purchase and rehabilitate the former Arkansas Louisiana and Missouri Railway running from Crossett south to Monroe. This line assured access to the UP, and to the line now owned by the KCS at Monroe. Today, the benefit of these investments has largely been lost, as the UP/SP merger has reduced the choice of service and rates to one major carrier, UP.

The Georgia-Pacific facilities in Crossett, Arkansas represent the largest industrial complex in the state of Arkansas. It employs approximately 3,000 employees, and dramatically impacts the commerce of Southeast Arkansas. Finished goods are shipped to virtually every state in the country. This facility includes the largest plywood plant and the second largest tissue manufacturing facility within the U.S. This business is dependent upon railroad equipment availability, service performance and cost. The lack of competition resulting from the UP/SP merger has negatively impacted the rail transportation. Without the competition afforded by access to the BNSF, there is no incentive for UP/SP to respond to our needs.

## **II. EFFECTS OF LACK OF COMPETITION CONSTRAINING UP SERVICE AND PRICES**

The reduction in our choices brought about by the UP/SP merger has had a serious impact on the, cost, service and equipment provided to us by the UP. The merger caused the following problems:

- Excessive delays in obtaining empty equipment for loading
- UP freight rates increases;



- Increased UP line-haul transit times for almost all movements; some greater than 100%;
- The necessity for G-P to ship products by truck or intermodal, at substantially increased cost, in order to meet delivery schedules caused by UP's poor service; and
- As a result of G-P's shift to non-rail modes, the reduction of Business due to non-competitive costs with imports.

**A. EXCESSIVE DELAYS IN PROVIDING CARS**

Following the merger, the UP has on more than one occasion gone for days without providing any cars.

As a result of the failure of UP to promptly provide cars, and the increased transit times to destinations using the UP, G-P incurred widespread customer dissatisfaction caused by ongoing service failures. G-P has converted much of its rail shipments to truck shipments in order to continue serving distant markets. G-P's Arkansas operations freight cost has increased over \$200,000 per month as a direct result of converting to more expensive modes of transportation. In addition to the increased freight expense, G-P has been forced to radically increase inventory levels at its West Coast warehouses to offset the transit delays. In spite of this effort, we continue to have severe service problems and customer dissatisfaction.

Car availability has improved on a few occasions. In November, UP service temporarily improved, but it worsened again in January. By the last week in January, the UP was missing a substantial portion of its scheduled service. In early February, UP was missing over half of the scheduled load at interchange. In the first week of March, it missed nearly half of pickups at interchanges. During the period March 14-19, the UP delivered no empty cars, even though there were ample empty AL&M boxcars in the UP's nearby Pine Bluff, Arkansas yard, that would have met G-P's needs.

Service again improved at the end of March. Yet even this improvement came with a change in the manner in which UP would pick up loaded cars and deliver empty cars with the AL&M.

The fact that UP service improved somewhat on these two occasions demonstrates that UP is capable of improving its service. Yet UP's failure to maintain service, UP's rate increases, and lack of empty equipment indicate that UP does not feel constrained to respond to competition. Whatever competition may be offered by the KCS does not provide sufficient incentive to induce UP to offer acceptable equipment, service, or stable rates.

#### **B. INCREASE IN UP FREIGHT RATES**

I fully expect that the UP will increase the rates by amounts in the 15% to 20% range, over the course of the next year, unless the AL&M is allowed access to BNSF to provide competition with UP. This is predicated upon the recent rate increases received on a negotiated G-P plywood contract. The UP in discussions with G-P has in fact said that they intend to increase rates on the basis that rates charged by SP were "too low". See Attachment 1, which demonstrates examples of rate increases for G-P Business.

To me, these statements by UP representatives are proof that the loss of the SP has had, and will continue to have, a direct adverse effect on the competitive choices available to G-P and its customers. UP's ability to unilaterally decide to increase rates that are "too low" shows conclusively that the limited rail competition offered by the KS is inadequate to constrain UP pricing.

#### **C. INCREASED TRANSIT TIMES**

G-P, like others who are dependent on UP service, has seen the transit times of its movements increase drastically following the UP/SP merger. Attachment 2 is a copy of the statistics showing the increase in transit times for the period 10/97-1/98 as compared with the period 10/96-1/97. As shown, the UP transit times increased over 100% as between those two periods.



#### **D. CUSTOMER MODAL SHIFTS COST**

Since July 1997, G-P has reduced, by 40%, its rail business because of the UP's poor service. This resulted from G-P's customers demanding to be converted from rail to truck whenever possible, because of UP-caused service problems and UP's inability to provide empty equipment.

G-P has faced business closings and/or interrupted production schedules as a result of the UP problems. We have also experienced a truck shortage from the conversion of rail business to truck.

#### **E. INABILITY OF KCS TO OFFER COMPETITIVE RATES AND SERVICES**

Because of the service breakdown on much of UP's system, G-P has attempted wherever possible to shift traffic to the KCS. Unfortunately, the KCS does not directly serve more than a handful of destinations to which G-P moves traffic.

In all other cases, the KCS must interline traffic to reach G-P customers' destinations. For example, the KCS cannot reach the Houston and St. Louis area gateways without interlining. The UP and SP acknowledged in their merger application that in the Houston-Memphis corridor, UP and SP were the only two competitive carriers.

Although KCS can offer service over joint routings, the rates for these joint routes have typically been higher than the UP rates to the same points. No doubt this is because of the inherent additional costs involved in interlining traffic.

Without rail-to-rail competition provided by BNSF, the only railroad that can compete equally with UP, the UP's service will remain poor and rates will increase. The KCS clearly cannot fully compete with the UP, and the only other option – truck or intermodal – is prohibitively expensive except in emergency situations.

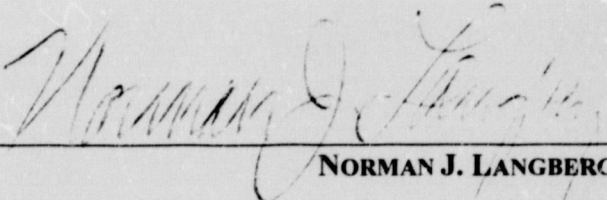
BNSF access seems clearly feasible, since BNSF already has the authority to run trains on the UP line through Fordyce, Arkansas and is doing so daily.

## **CONCLUSION**

For all reasons stated above, the Board should grant the AL&M the right to interchange traffic with the BNSF at Fordyce, Arkansas.

## VERIFICATION

I, **NORMAN J. LANGBERG**, swear under penalty of perjury, under the laws of the United States that I have read the foregoing statement and that the statement is true and correct to the best of my knowledge.

  
\_\_\_\_\_  
**NORMAN J. LANGBERG**



**HIGHLY CONFIDENTIAL**

**REDACTED**



**UNION PACIFIC SERVICE PERFORMANCE**  
**OCTOBER 1996 – JANUARY 1997 vs OCTOBER 1997 – JANUARY 1998**

<b>Destination</b>	<b>96-97 Average Transit Days</b>	<b>97-98 Average Transit Days</b>	<b>% Increase In Delays</b>
Fresno, CA	13.75	29.08	111%
Clearfield, UT	13.05	18.60	43%
Butler, WI	8.53	11.62	36%
Berkely, IL	7.98	9.46	19%
Covington, TN	7.20	10.21	42%
Mansfield, MA	12.22	16.76	37%
Hazelton, PA	12.24	12.89	5%
St. Albans, VT	18.40	19.03	3%
Springfield, MO	8.38	14.30	71%
Philadelphia, PA	8.33	19.35	132%
Owings Mills, MD	14.39	21.72	51%
Northwales, PA	11.66	14.69	26%
Newark, NJ	13.23	13.53	2%
Mitchell, SD	14.19	22.03	55%
Chicago, IL	11.96	13.82	16%
Carson, CA	13.47	21.25	58%

STB FD-32760 (SUB21) 6-1-98 D ID-187959

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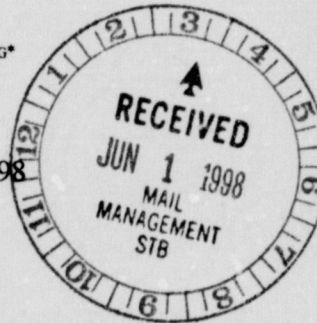
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Office of the Secretary June 1, 1998

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**VIA COURIER**

Vernon A. Williams, Secretary  
Office of the Secretary  
Surface Transportation Board  
1925 K Street, N.W., Room 711  
Washington, DC 20423-0001

Re: Finance Docket No. 32760 (Sub-No. 21)--Union Pacific Corporation,  
Union Pacific Railroad Company and Missouri Pacific Railroad Company--  
Control and Merger--Southern Pacific Rail Corporation, Southern Pacific  
Transportation Company, St. Louis Southwestern Railway Company, SPCSL  
Corp. and The Denver and Rio Grande Western Railroad Company (Oversight)

Dear Secretary Williams:

Enclosed for filing in the above-captioned case is an original and twenty (25) copies of the Reply of International Paper Company in Support of Petition of Arkansas, Louisiana and Mississippi Railroad Company for an Additional Remedial Condition, designated as document IP-21. We have also enclosed an additional copy to be date-stamped when filed and returned to us.

Also enclosed is a 3.5" WordPerfect 6.1 disk containing the text of IP-21.

Very truly yours,

Edward D. Greenberg

Enclosures

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**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

**Finance Docket No. 32760 (Sub-No. 21)**



**UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD COMPANY  
AND MISSOURI PACIFIC RAILROAD COMPANY  
--CONTROL AND MERGER --  
SOUTHERN PACIFIC RAIL CORPORATION, SOUTHERN PACIFIC  
TRANSPORTATION COMPANY, ST. LOUIS SOUTHWESTERN RAILWAY  
COMPANY, SPCSL CORP. AND THE DENVER AND  
GRO GRANDE WESTERN RAILROAD COMPANY**

**[OVERSIGHT]**

**REPLY OF INTERNATIONAL PAPER COMPANY  
IN SUPPORT OF PETITION OF  
ARKANSAS, LOUISIANA AND MISSISSIPPI RAILROAD COMPANY  
FOR AN ADDITIONAL REMEDIAL CONDITION**

**Edward D. Greenberg  
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**Counsel for International Paper Company**

**Dated: June 1, 1998**

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**Finance Docket No. 32760 (Sub-No. 21)**

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**REPLY OF INTERNATIONAL PAPER COMPANY  
IN SUPPORT OF PETITION OF  
ARKANSAS, LOUISIANA AND MISSISSIPPI RAILROAD COMPANY  
FOR AN ADDITIONAL REMEDIAL CONDITION**

The International Paper Company ("IP") submits the following Reply in support of the petition of the Arkansas, Louisiana and Mississippi Railroad Company ("AL&M") that seeks an additional remedial condition in the underlying merger of the Union Pacific ("UP") and Southern Pacific ("SP") railroad systems.

As the Board will recall, IP was an active participant in the UP/SP merger because of its concern that the transaction would reduce essential competitive services in the western United States generally, and to a number of IP facilities in particular. Due to its heavy reliance on rail service, IP was reluctant to accept the assurances offered by the Applicants that competitive services would be enhanced, not diminished, by the transaction and that the lengthy, but limited, trackage rights granted to the Burlington Northern Santa Fe Railway system ("BNSF") would resolve all problems. After participating at length in discovery and subsequent to numerous meetings with the UP/SP and BNSF on the topic of how its facilities would be served if the merger was approved as proposed, IP requested that the Board impose additional conditions on the parties. Briefly stated, IP sought to ensure that the BNSF would in fact, not just in theory, be a viable alternative for the competitive services that previously had been provided to IP's mills by SP, especially given the fact that SP had been delivering services to the company far more efficiently than had UP.



The Board denied the conditions sought by IP, believing that the BNSF would be able to provide the competitive balance that had, prior to the merger, been offered at numerous locations by SP. And, the fact that some rail-served shippers were going from three to two railroads would not have an adverse affect on service or rates. Hindsight demonstrates, regrettably, that the Board's assumptions and conclusions did not coincide with what turned out to be reality. As AL&M's Petition demonstrates, the UP has taken the opportunity to simultaneously reduce service and increase rates wherever there has been no competitive constraint to temper its conduct. Thus, since the problems cited by the AL&M are also severely affecting IP's operations at its major printing paper mill in Bastrop, LA, IP respectfully requests that the AL&M's Petition be granted.

#### **I. BACKGROUND**

IP is the world's largest paper company, conducting operations throughout the United States from over 650 paper and lumber mills, converting plants, warehouses, distribution centers, retail stores and related sales service support offices. As relevant here, IP operates a paper mill located at Bastrop, Louisiana which primarily produces printing paper. Prior to the UP/SP merger, the mill enjoyed vigorous competition between three railroads vying for IP traffic: the Southern Pacific which interchanged with the AL&M at Fordyce, AR to the north of the mill, the Kansas City Southern Railroad ("KCS") which interchanged with the AL&M at Monroe, LA to the south, and the Union Pacific which maintained a line of track that directly connected with the Bastrop mill. As a result, rail service in the form of car supply, daily switching and shipment transit time was reliable and efficient, and rates were maintained at competitive levels. (See attached Verified Statement of Charles E. McHugh, "V/S McHugh", at 2-3.)

Following the merger, the number of railroads transporting products for the mill was reduced to two: the UP direct and, through the AL&M, the KCS at Monroe, LA and the UP, again, at Fordyce. In actuality, however, AL&M's second outlet --i.e., to the UP--will increasingly disappear, as UP will accept AL&M/UP routings for IP's traffic only because of the continued existence of SP contracts. Once those expire, the only routings for IP's business from the Bastrop mill will be via UP at Bastrop and via AL&M/KCS. V/S McHugh, at 3.

## **II. THE LOST SP COMPETITIVE SERVICE NEEDS TO BE REPLACED**

While the UP system has been rocked by the service crisis that hit, at least for IP, as early as last July, IP demonstrated in underlying merger proceeding that the SP had previously been a far more responsive, competitive carrier and that it had provided a substantially superior level of service and more favorable rates. (See, generally, the Verified Statement of Charles E. McHugh in the merger proceedings, IP-10.) The service deficiencies of the UP have not changed since then, other than to further deteriorate. As Mr. McHugh's statement shows, UP's on-time performance from January 1, 1968 to April 30, 1998, has been grossly inferior at all IP locations, but the situation is most severe at Bastrop where IP has been forced to divert traffic to truck in order to meet its commitments and keep the mill open. (V/S McHugh, at 3-5.)

Not only has UP been unable to provide reasonably responsive service on traffic that moves over its system, but its service deficiencies have infected other carriers. IP has attempted to reward AL&M for the superior service provided by it and its connections (principally, the KCS), by moving an increasing share of the Bastrop outbound traffic to that carrier. Indeed, under the IP bid program, for 1997 and 1998 AL&M routings were slated to receive 70% of the outbound rail business from



that facility, with the UP only scheduled to receive 30%. This has not been possible, through no fault of AL&M. Instead, due to UP's lack of responsiveness to the needs of AL&M by which it has not returned cars badly needed by that shortline, that carrier is unable to handle much of the traffic IP would tender, so that it has only received 46%, rather than the scheduled 70%, of the available business. Id., at 6-7.

There is no justification for AL&M--or the shippers along its line--to be subject in this manner to the whims and services the UP is willing to provide. The BNSF, which was stated by UP itself to be the replacement for lost SP competitive service appears ready, willing and able to step into the breach. Although IP expressed doubts about the BNSF level of commitment during the UP/SP proceeding, that carrier has more recently made substantive efforts to increase its presence on the Houston-Memphis corridor, has agreed to provide local switching crews at Camden and Pine Bluff, has agreed to make other infrastructure investment along this corridor and is now poised to replace the competition lost by the elimination of the SP. Moreover, BNSF is willing to serve Fordyce to handle the interchange sought by AL&M and is willing to provide IP with the badly needed boxcars that would permit AL&M to receive its proper share of IP's business. This, of course, would substantially restore the quality of rail service that was available to IP before the UP/SP merger.

IP agrees with the discussion in AL&M's petition that the Board has ample authority to impose this additional condition on the UP/SP merger, that conditions imposed in Decision No. 44 to benefit Lake Charles shippers are clear precedent for the remedy needed here and that there is no operational obstacle to authorizing the requested interchange. (See AL&M Petition, at 8-13.) Accordingly, IP adopts and incorporates those arguments here.



### III. CONCLUSION

The situation that has developed at Bastrop, as described in the AL&M petition and in the attached Verified Statement of Charles E. McHugh, demonstrates that one cannot simply count up the number of carriers that provide service to a shipper or an area and conclude that effective competitive services will exist simply because two railroads are present. Notwithstanding its best efforts, the AL&M cannot by itself replace the service provided by SP since it necessarily must rely on its connections to efficiently handle its equipment and traffic; when that breaks down, both the AL&M and the shipper are injured. The Board should accordingly recognize the "3-to-2" situation it believed would result in this instance was actually "3-to-1-1/2", in that the AL&M is not able, by itself, to substitute for the service that had been provided by the SP.

The BNSF is ready, willing and able to remedy the problem that confronts AL&M and its shippers. IP respectfully urges the Board to grant the requested condition and restore the competitive rail services that has been lost as a result of the merger.

Respectfully submitted,

GALLAND, KHARASCH & GARFINKLE, P.C.

By: 

Edward D. Greenberg  
1054 Thirty-First Street, N.W.  
Washington, DC 20007  
(202) 342-5200

Dated: June 1, 1998

BEFORE THE  
SURFACE TRANSPORTATION BOARD

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Finance Docket No. 32760 (Sub No. 21)  
UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD  
COMPANY  
AND MISSOURI PACIFIC RAILROAD COMPANY

-- CONTROL AND MERGER --

SOUTHERN PACIFIC RAIL CORPORATION, SOUTHERN PACIFIC  
TRANSPORTATION COMPANY, ST. LOUIS SOUTHWESTERN  
RAILWAY  
COMPANY, SPCSL CORP. AND THE DENVER AND  
RIO GRANDE WESTERN RAILROAD COMPANY

OVERSIGHT PROCEEDING

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VERIFIED STATEMENT  
OF  
CHARLES E. McHUGH

My name is Charles E. McHugh. I am Manager of U.S. Distribution Operations for the International Paper Company ("IP"). I have occupied this position since January 1991 and have been employed by International Paper Company in the field of logistics since August 1970. My business address is 6400 Poplar Avenue, Tennessee 38917.

As Manager of U.S. Distribution Operations for the company, I am responsible for the procurement of transportation services for the inbound movement of all raw and semi-finished products to our mills and plants, as well as all outbound movement of finished products to our customers throughout North America. This includes the responsibility for negotiating rate and service issues with the various rail and motor carriers serving our facilities. I am familiar with the paper and



forest products industry and the various transportation modes employed to move our raw materials and deliver our finished products to market.

IP is the world's largest paper company, conducting operations throughout the United States from over 650 paper and lumber mills, converting plants, warehouses, distribution centers, retail stores and related sales service support offices. Our manufacturing facilities in the United States produce paper and paper products including woodpulp, pulpboard, wrapping and printing papers, converted products including corrugated boxes, folding cartons, milk cartons and wood products including lumber, plywood, decorative panels and other specialty products to serve the building trades, as well as chemical products. We move these products throughout the United States and North America utilizing the services of a number of transportation vendors.

I participated in the Union Pacific/Southern Pacific merger proceedings where I discussed the potential anticompetitive effects of the merger and its effect on our shipping needs. As a result, I am very familiar with the issues raised in this proceeding. I represent IP's interests before pertinent government regulatory bodies and am authorized by IP to make this statement.

IP operates a paper mill located at Bastrop, Louisiana which primarily produces printing paper. Prior to the UP/SP merger, the mill enjoyed vigorous competition between three railroads vying for IP traffic: the Southern Pacific which interchanged with the Arkansas, Louisiana & Mississippi Railroad ("AL&M") at Fordyce, AR to the north of the mill, the Kansas City Southern Railroad ("KCS") which interchanged with the AL&M at Monroe, LA to the south, and the Union Pacific which maintained a line of track that directly connected with the Bastrop mill. As a result, rail service in the form of car supply, daily switching and shipment transit time was reliable and efficient,

and rates were maintained at competitive levels. Following the merger, the number of railroads transporting products for the mill was reduced to two: the UP and, through the AL&M, the KCS at Monroe, LA and the UP, again, at Fordyce. Parenthetically, while it may appear that UP serves the rail both directly and, via the AL&M, at Fordyce, that situation will not last very long. UP service at Fordyce will plainly end once the existing SP contract IP has expires, as UP will not permit AL&M to participate in routings to UP destinations.

IP fully supports the condition sought by the AL&M, as we believe that it is necessary to remedy competitive harm caused by the UP/SP merger. Service has deteriorated drastically since the merger was approved and the KCS, for reasons discussed below, is simply not in a position to make up the difference. At the very time IP would logically be routing more traffic over KCS in order to reach its markets in the southwest, mid-west and far west, IP is increasingly forced to rely on UP's manifestly substandard service. And, since UP has frequently failed to provide any service at all, IP has often been required to move its product by truck, at substantially higher cost and inconvenience to both IP and its customers. The AL&M petition, which seeks authorization to interchange with the BNSF at Fordyce, is an excellent idea that would both restore badly needed competition and provide IP with the assurance of a long-term viable rail service.

By way of background, IP has made substantial investments at our Bastrop mill in order to meet the growing demands of our customers for the printing paper produced there. IP has attempted, with some success until the UP service meltdown, to grow its rail business, predicated largely on the superior performance of AL&M and its connections. Maintaining that growth is dependent, of course, on a reliable supply of quality boxcars.



Regrettably, the UP's performance in this important area was deficient even before the acquisition of the SP was approved. Indeed, this was one of the primary reasons IP was concerned about the wisdom of granting the merger in the first place. As the Board will recall, we produced evidence demonstrating that the SP's on-time performance on traffic tendered by IP was far superior to that of the UP.

To illustrate this, the attached Exhibit A, entitled "Rail On-Time Transit Performance, 1996-1998" graphically demonstrates UP's substandard performance. This chart measures the on-time performance of the railroads that provide service as compared to *their* promised targets. In other words, IP does not dictate how much time the carriers have to deliver freight, but instead asks the railroads to specify how much time *they* believe it will take to move shipments to their various destinations. Parenthetically, the traffic carried by the railroads that report such statistics to IP amounts to approximately 4,400 cars per month and accounts for roughly 2/3 of IP's finished outbound product, so that this is plainly a significant sampling of rail performance.

Exhibit A shows that UP's performance came close to IP's minimum acceptable standard of 75% on-time performance in only 2 of the 27 months represented here. And, although the SP's performance was certainly not exceptional, it was substantially better than the results for the UP prior to the merger. On the other hand, when all of the reporting railroads are compared, their performance closely approximates the 75% minimum standard demanded by IP. Consequently, SP tended to be awarded a substantially greater share of the traffic for which the two railroads competed at IP's Pine Bluff and Camden, AR mills. (See my Comments in the UP/SP merger, IP-10, at 16-17.)

UP's deficient performance became progressively worse after the merger, culminating--as the Board well knows--in the service crisis that began in July of 1997.

When looking specifically at the situation at Bastrop, UP's performance is even worse. I have attached, as Exhibit B, a chart entitled "Bastrop On-Time Performance, 1996-98" which compares the UP's performance to that of the ALM from January 1, 1996 through April 30, 1998. While UP's performance at Bastrop did exceed the 75% minimum standard in 4 months, overall the statistics are strikingly low. Since July, 1997, UP's performance has not even approached marginally acceptable levels. On the other hand, the performance of the AL&M (which includes its various connecting carriers) has generally been superior, dipping below the 75% standard only once and has generally ranged at or above the 90% level of on-time performance.

Although it is obvious from the quarterly reports being filed with the Board by UP that its levels of service are nowhere near acceptable, a situation that is far worse for IP than simply delayed performance occurs when a railroad is unable to provide cars to load out IP's finished product. Our Bastrop mill, which relies on a steady flow of cars to load the outbound product, frequently experienced periods of time when UP was totally unable to provide any cars. More recently UP's car supply has improved but it has not been unusual for that plant to have as many as 180 unfilled AL&M car orders or to experience nine days without receiving any cars at all through no fault of AL&M. Table 2 attached to the verified statement of Larry Ahlers, the President of AL&M, shows that the problem is UP's lack of responsiveness to the needs of AL&M and its customers. Hence, as noted below, IP is increasingly forced to use the direct UP service available to the mill, as the UP is at least able to provide cars.



The reason for this is simple. AL&M only has a finite number of cars in its fleet, which means they must be able to cycle back to the origin on a reasonable basis or else someone is simply not going to be able to receive service. Unfortunately, that someone frequently happened to be IP. This is a graphic illustration as to why IP was forced to use truck to move its product out of the Bastrop facility on literally hundreds of occasions. At first blush, one would think that this should not be a problem, since IP of course could always turn to the AL&M to fill the void. After all, the AL&M also directly serves the mill, and, with its interchange at Monroe with the KCS and formerly with SP at Fordyce, provided an efficient routing for a significant amount of IP's traffic.

And, in recognition of AL&M's superior service, IP awarded that carrier 70% of the projected outbound product moving from the mill for both 1997 and 1998. Unfortunately, and as evidenced by the AL&M's petition, it has been experiencing similar difficulties. Due to the UP's problems, the AL&M does not have a sufficient supply of cars to permit IP to route around the UP problems, because its cars are apparently spread out all over the UP system. Similarly, the KCS has stepped up to the plate at many other locations in excess of their commitments, and has been of great assistance to IP at other locations; but there is a limit to that company's resources. Neither the AL&M nor the KCS could in any event make up for the loss of car supply and competitive service formerly available through the SP; simply stated, the UP/SP merger eliminated an important source of service that has not been--and cannot be under the existing structure--replaced. At the very time when one would expect IP to be increasing its reliance upon the AL&M and its sole remaining connection, IP has been forced, due to the lack of available cars from the AL&M, to increasingly move more of its rail traffic by the UP. Thus, although IP only awarded 30% of its rail traffic out of

Bastrop to UP in 1997 and 1998, UP's service difficulties have had the quixotic effect of raising that carrier's rail market share to 54% at the present time. Conversely, although AL&M was slated to handle 70% of IP's business this year, it has received 46% of the available traffic since it cannot--through no fault of its own--provide our mill with cars. This is certainly not acceptable to IP and should not be acceptable to any rational business person.

As the AL&M petition indicates, the severe decline in UP service came amidst unjustified rate hikes and threats of continued rate increases to Georgia Pacific--this despite Georgia-Pacific's endorsement of the Union Pacific/Southern Pacific transaction in the merger proceedings. IP, which expressed strong reservations about the conditions on which the merger was predicated--and was criticized by the UP as its "implacable foe"--is concerned that the UP, unrestrained by any meaningful or effective competition, might allow service to further deteriorate and raise rates to unacceptable levels once current contracts expire.

Recent commitments made by the BNSF on the Houston-Memphis corridor, however, present a viable and reasonable solution to the problem. Since the UP/SP merger, BNSF made substantive efforts to increase its presence on the Houston-Memphis corridor, has agreed to provide local switching crews at Camden and Pine Bluff, has agreed to make other infrastructure investment and is in the process of becoming the replacement along this corridor for the lost SP competition that was envisioned and promised. As particularly relevant here, the BNSF has advised that it is feasible to serve Fordyce either by running local trains between Fordyce, AR and the Pine Bluff, AR yard, or by attaching cars to BNSF's through trains that run between Memphis, TN to Longview, TX. BNSF has also committed to providing the badly needed boxcars to IP and has indicated a willingness to



handle additional IP traffic along the Houston-Memphis corridor. Moreover, the AL&M system already maintains the necessary tracks, sidings and crews to position cars for two pick-ups and set-offs per day at Fordyce, AR (one by UP and one by BNSF); hence, there is certainly no operational problem.

In light of the investments and service improvements made by the BNSF on the Houston-Memphis corridor, and commitments made to both IP and AL&M, IP is confident that the AL&M interchange with the BNSF would do much to relieve AL&M's problems and would restore meaningful competitive service to the Bastrop mill. Now that BNSF may be becoming the competitive force that the UP/SP and the Board promised during the merger proceeding, it should be permitted to serve the available traffic.

The fundamental anticompetitive concern raised in the merger proceedings remain the same here. In order to operate and serve its own customers, IP must be ensured of effective and reliable rail service. And as the current situation vividly indicates, such service can be realized only where there is aggressive and meaningful competition. In light of the above, we respectfully urge the Board to grant AL&M's petition to interchange with the BNSF at Fordyce, AR.

**VERIFICATION**

I, Charles E. McHugh, do verify that the foregoing is true and correct to the best of my knowledge, information and belief.

*Charles E. McHugh*

Charles E. McHugh

STATE OF TENNESSEE     )  
                                  )ss:  
COUNTY OF SHELBY     )

Subscribed and sworn to before me by Charles E. McHugh this 29th day of May, 1998.

*Marianne Duval*

Notary Public

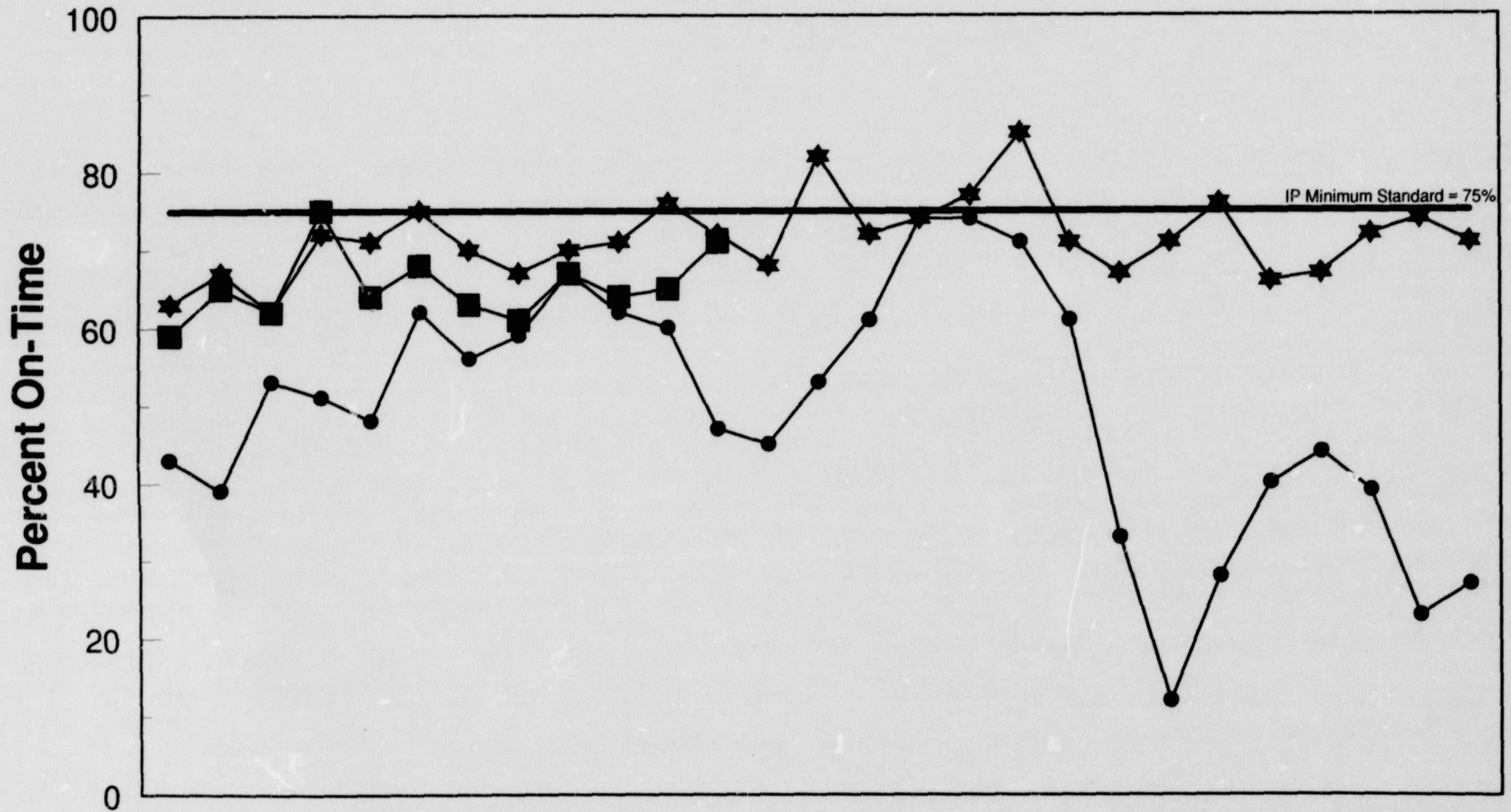
My commission expires: My Commission Expires 9/15/98



# Rail On-Time Transit Performance \*

## 1996-1998

EXHIBIT A



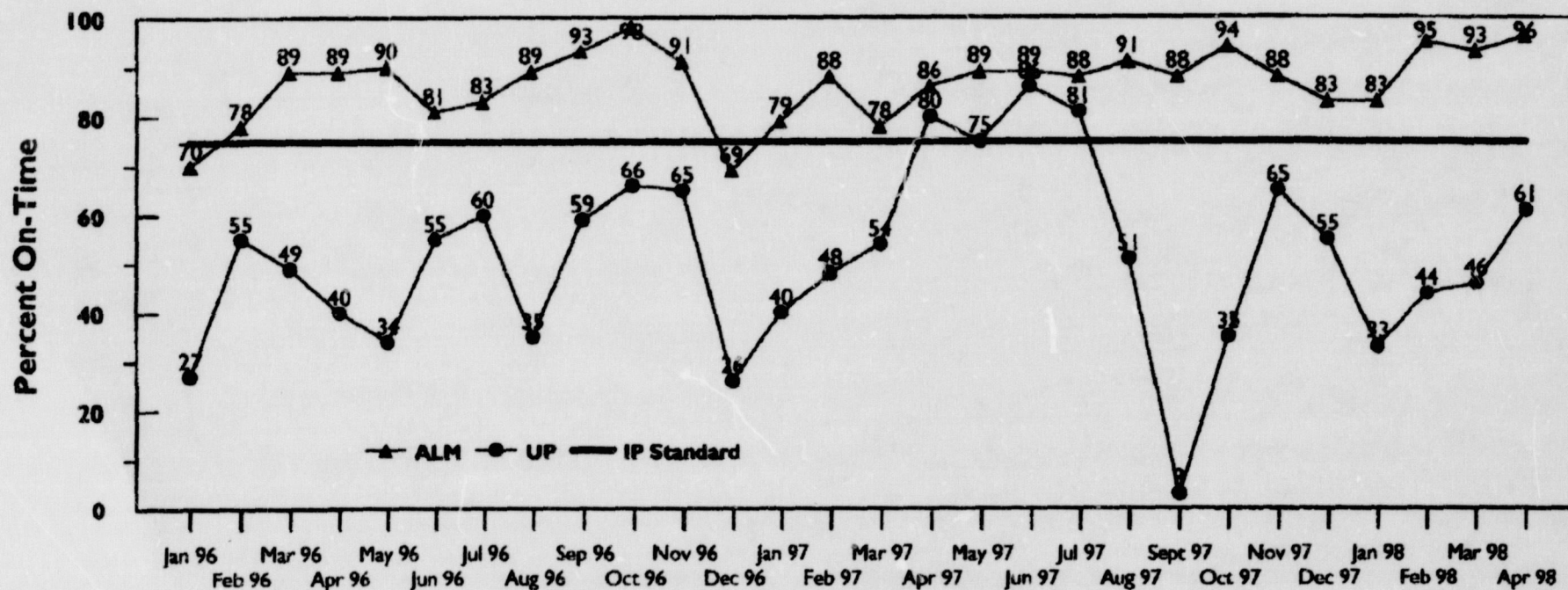
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SP 96	59	65	62	75	64	68	63	61	67	64	65	71															
UP 96	43	39	53	51	48	62	56	59	67	62	60	47	45														
UP/SP 97													45	53	61	74	74	71	61	33	12	28	40	44	39	23	27
US RR (-UP)	63	67	62	72	71	75	70	67	70	71	76	72	68	82	72	74	77	85	71	67	71	76	66	67	72	74	71
Standard	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75

\*Data supplied by railroads

Intl Paper  
5/98



# Bastrop On-Time Performance 1996-1998

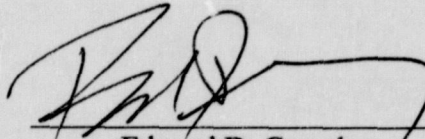


## Car Volume 1996-1998

	Jan 96	Feb 96	Mar 96	Apr 96	May 96	Jun 96	Jul 96	Aug 96	Sep 96	Oct 96	Nov 96	Dec 96	Jan 97	Feb 97	Mar 97	Apr 97	May 97	Jun 97	Jul 97	Aug 97	Sep 97	Oct 97	Nov 97	Dec 97	Jan 98	Feb 98	Mar 98	Apr 98
▲ ALM Vol	147	132	113	130	87	125	74	89	122	135	63	125	104	125	205	128	93	84	122	125	100	130	39	76	128	95	91	130
● UP Vol	60	56	63	89	70	65	104	60	137	108	113	137	119	104	71	106	78	45	53	164	182	107	126	158	135	102	111	137

**CERTIFICATE OF SERVICE**

I certify that on this 1st day of June, 1998 I caused a copy of the foregoing Reply of International Paper Company in Support of Petition of Arkansas, Louisiana and Mississippi Railroad Company for an Additional Remedial Condition to be served by first-class mail, postage prepaid, on all parties of record in this proceeding.

  
\_\_\_\_\_  
Edward D. Greenberg

STB

FD-32760 (SUB21)

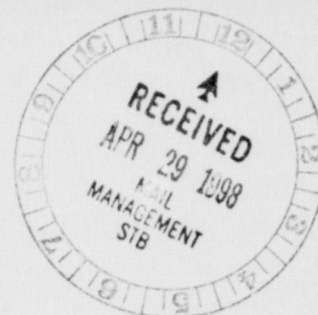
4-29-98

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ID-187308

187308

BEFORE THE SURFACE TRANSPORTATION BOARD



Union Pacific Corp., Union Pacific R.R. and  
Missouri Pacific R.R.—Control and Merger—  
Southern Pacific Rail Corp., Southern Pacific  
Transportation Co., St. Louis Southwestern Ry.,  
SPCSL Corp. and The Denver & Rio Grande  
Western R.R.

) Finance Docket No. 32760  
) (Sub-No. 21)  
)  
)  
)  
)  
)  
)

D

NOTICE OF INTENT TO PARTICIPATE AS PARTY OF RECORD

The Brotherhood of Maintenance of Way Employees ("BMW") hereby serves notice that it intends to participate as a party of record in this proceeding pursuant to the instructions in the Board's Decision and Order served March 31, 1998. BMW's representatives in this proceeding are:

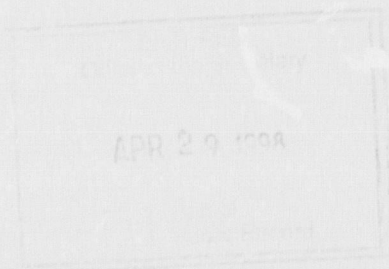
William A. Bon, General Counsel  
Brotherhood of Maintenance  
of Way Employees  
26555 Evergreen Road - Suite 200  
Southfield, MI 48076  
(248) 948-1010  
(248) 948-7150 (fax)

Donald F. Griffin, Asst. General Counsel  
Brotherhood of Maintenance of Way Employees  
10 G Street, N.E. - Suite 460  
Washington, DC 20002  
(202) 638-2135  
(202) 737-3085 (fax)

Respectfully submitted,

Donald F. Griffin, Assistant General Counsel

Dated: April 21, 1998



STB

FD-32760 (SUB21)

4-24-98

D

ID-187259



# TROUTMAN SANDERS LLP

ATTORNEYS AT LAW  
A LIMITED LIABILITY PARTNERSHIP

1300 I STREET, N.W.  
SUITE 500 EAST  
WASHINGTON, D.C. 20005-3314  
TELEPHONE: 202-274-2950  
FACSIMILE: 202-274-2994

William A. Mullins

187259

202-274-2953

April 24, 1998

## HAND DELIVERED

Mr. Vernon A. Williams  
Case Control Unit  
ATTN: STB Finance Docket No. 32760 (Sub-No. 21)  
Surface Transportation Board  
Suite 700  
1925 K Street, N.W.  
Washington, D.C. 20006



Re: Finance Docket No. 32760 (Sub-No. 21) *Union Pacific Co. v. Union, et al. -- Control & Merger -- Southern Pacific Rail Corporation, et al. Oversight Proceeding*

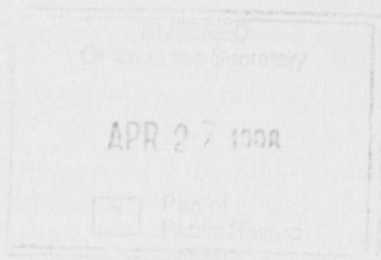
Dear Secretary Williams:

Enclosed for filing in the above captioned proceeding are the original and twenty-six copies of KCS-10, The Reply of the Kansas City Southern Railway Company to The Burlington Northern and Santa Fe Railway Company's Quarterly Progress Report.

Please date and time stamp one of the copies for return to our offices. Included with this filing is a 3.5 inch Word Perfect, Version 5.1 diskette with the text of the pleading.

Sincerely yours,

William A. Mullins  
Attorney for The Kansas City Southern  
Railway Company



cc: Parties of Record

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

---

**FINANCE DOCKET NO. 32760 (Sub-No. 21)**

---

**UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD COMPANY  
AND MISSOURI PACIFIC RAILROAD COMPANY  
-- CONTROL AND MERGER --  
SOUTHERN PACIFIC RAIL CORPORATION, SOUTHERN PACIFIC  
TRANSPORTATION COMPANY, ST. LOUIS SOUTHWESTERN RAILWAY  
COMPANY, SPCSL CORP. AND THE DENVER  
AND RIO GRANDE WESTERN RAILROAD COMPANY**

---

**OVERSIGHT PROCEEDING**

---

**REPLY TO THE BNSF APRIL 1, 1998  
QUARTERLY PROGRESS REPORT**

---

**Richard P. Bruening  
Robert K. Dreiling  
THE KANSAS CITY SOUTHERN RAILWAY  
COMPANY  
114 West 11<sup>th</sup> Street  
Kansas City, Missouri 64105  
Tel: (816) 983-1392  
Fax: (816) 983-1227**

**William A. Mullins  
Alan E. Lubel  
John R. Molm  
David C. Reeves  
Sandra L. Brown  
Ivor Heyman  
Samantha J. Friedlander  
TROUTMAN SANDERS LLP  
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Suite 500 East  
Washington, D.C. 20005-3314  
Tel: (202) 274-2950  
Fax: (202) 274-2994**

**Attorneys for The Kansas City Southern  
Railway Company**

**April 24, 1998**

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

---

**FINANCE DOCKET NO. 32760 (Sub-No. 21)**

---

**UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD COMPANY  
AND MISSOURI PACIFIC RAILROAD COMPANY  
--CONTROL AND MERGER--**

**SOUTHERN PACIFIC RAIL CORPORATION, SOUTHERN PACIFIC  
TRANSPORTATION COMPANY, ST. LOUIS SOUTHWESTERN RAILWAY  
COMPANY, SPCSL CORP. AND THE DENVER  
AND RIO GRANDE WESTERN RAILROAD COMPANY**

---

**OVERSIGHT PROCEEDING**

---

**REPLY TO THE BNSF APRIL 1, 1998  
QUARTERLY PROGRESS REPORT**

---

The Kansas City Southern Railway Company ("KCS") wishes to respond to certain statements made about the Texas Mexican Railway Company ("Tex Mex") and KCS in the Burlington Northern and Sante Fe Railway Company's ("BNSF") Quarterly Progress Report dated April 1, 1998, BNSF-PR-7, (hereinafter, "Quarterly Report"). These statements suggest that a prior agreement between KCS and Transportacion Maritima Mexicana ("TMM"), who are joint owners of Tex Mex, is impeding the competitiveness of a proposed BNSF/Tex Mex routing agreement to Laredo. That suggestion is unwarranted.

On December 1, 1995 TMM and Kansas City Southern Industries ("KCSI") (the corporate parent of KCS) entered into a Joint Venture Agreement (the "Joint Venture Agreement"), amongst other things, to:

- work together to further the interests of TMM and KCSI in connection with any rail mergers in the United States, including the Union Pacific/Southern Pacific merger;



- develop opportunities for the rail affiliates of TMM and KCSI (Tex Mex, KCS, and the Northeast Mexican private rail concession, TFM) to jointly market their railroad transportation services between Mexico and the United States; and
- provide support to Tex Mex.

BNSF claims in its Quarterly Report that it was unaware of the precise terms of the Joint Venture Agreement until March 9, 1998 when KCS described the Agreement in a letter to BNSF. While BNSF may not have been aware of the "precise terms" of the Joint Venture Agreement until that time, BNSF has certainly been aware of the substantive nature of the partnership, and its purposes, since its formation.<sup>1</sup> As a significant participant in the UPSP control proceeding, BNSF knew as early as the spring of 1996, (1) that the partnership was created to bid for, purchase, and ultimately operate the Northeast, private rail concession in Mexico and to market rail service between Mexico and the United States and (2) that the partnership entailed a KCSI purchase of a 49% interest in Tex Mex.<sup>2</sup> Additionally, BNSF requested a meeting between KCS,

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<sup>1</sup> Indeed, the TMM/KCSI partnership was referred to by the Board in its final decision approving the UP/SP merger. *See* Decision No. 44 at 31.

<sup>2</sup> In his Verified Statement filed as part of the "Comments of the Kansas City Southern Railway Company and Request for Conditions" (KCS-33, Volume I, p. 141), filed in F.D. 32760 on March 29, 1996, KCS's President and CEO stated:

On August 28, 1995, Kansas City Southern Industries, Inc. ("KCSI") and Transportacion Maritima Mexicana, S.A. de C.V. ("TMM"), the parent companies of KCS and TexMex, entered into a letter of intent that provides for KCSI's acquisition of a 49% interest in TexMex and for the creation of a joint venture business entity in Mexico to acquire, own, and operate rail facilities and lines in that country by preserving competitive alternatives for transportation between the U.S. and Mexico. The purpose of the KCS/TMM joint venture is to develop rail operations in Mexico and expand TMM's operations in the United States. This joint venture has a major stake in the planned privatization of rail transportation in Mexico in a way that will preserve competition for both domestic Mexican rail traffic and for international traffic between the United States and Mexico.

Tex Mex and BNSF officials to work out an agreement amongst the parties so that BNSF could utilize Tex Mex. The meeting was held January 20, 1997 at KCS headquarters in Kansas City, Missouri. BNSF was clearly aware at that time of the Tex Mex/KCS relationship. BNSF should not be suggesting now that it had no knowledge of the substantive nature of the Joint Venture Agreement or the partnership until March 9, 1998.

BNSF also claims in its Quarterly Report that it was unaware that the Joint Venture Agreement might materially limit the ability of Tex Mex to accept the commercial terms under discussion. The commercial terms to which BNSF is referring is "most favored nation" treatment, which BNSF is demanding for its interline rate divisions with Tex Mex. This demand has been the subject of dispute between the parties since at least the middle of 1996 and it is this dispute that has delayed the implementation of a BNSF/Tex Mex commercial agreement.

For example, in one of the more significant meetings, top management representatives from BNSF, KCS and Tex Mex attended an August 22, 1997 meeting at BNSF headquarters in Ft. Worth, Texas to discuss a revised proposal for a BNSF/Tex Mex routing agreement over Laredo. This meeting was a follow-up to the discussions with KCS, Tex Mex, and BNSF officials that began with the January 20, 1997 meeting in Kansas City. The parties were able to reach an agreement in principle on all items, but one---BNSF steadfastly insisted that it receive

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Similarly, in its "Rebuttal in Support of the Responsive Application of The Texas Mexican Railway Company" (TM-34), filed May 14, 1996, in F.D. No. 32760 (Sub-Nos. 13 and 14), at p. 6, Tex Mex stated:

Tex Mex also made clear that the remedy it seeks would also further a related objective -- the effort of TMM and KCSI to establish an effective and competitive rail service between the midwestern United States and Central Mexico by obtaining one or more rail concessions in Mexico in the upcoming privatization of Mexico's rail lines. Such a service would further the policies of NAFTA as well as Mexico's efforts to introduce efficiency and competition to Mexico's rail system. The trackage rights Tex Mex seeks and the direct connection to KCS will greatly strengthen the competitiveness and efficiency of that service.

rate parity or "most favored nation treatment" *vis-à-vis* a KCS and Tex Mex routing, a commitment that would be inconsistent with the purpose and, indeed the letter, of the TMM/KCSI partnership and Joint Venture Agreement. Although agreement was reached on all other terms, Tex Mex and KCS, for numerous reasons, could not accept BNSF's demand for such "most favored nation" treatment. KCS remains concerned that BNSF's continued insistence on "most favored nation" treatment for itself *vis-à-vis* KCS is intended to undermine the TMM/KCSI partnership relationship.

KCS' rejection of "most favored nation treatment" is not driven solely by the Joint Venture Agreement, as BNSF insinuates. For instance, in the October 11, 1996, Reply of the Texas Mexican Railway Company to the Progress Report and Operating Plan of BNSF that BNSF filed on October 1, 1996 ("the Tex Mex Reply" identified as "TM-48"), Tex Mex explained that the establishment of "most favored nation treatment" or rate parity simply is not possible for the following reasons:

- the appropriate rates and divisions must in each instance be based on the cost and marketing considerations appropriate to the movement in question and rate parity cannot merely be established without regard to these considerations;<sup>3</sup> and
- a proposal that two connecting carriers agree that their interline rates and divisions shall be tied to and be the same as the rates and divisions that one of those carriers maintains with other connecting railroads raises serious competitive and antitrust concerns.<sup>4</sup>

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<sup>3</sup> TM-48 at 6.

<sup>4</sup> The antitrust concerns are per se price-fixing in violation of Section 1 of the Sherman Act. See TM-48 at 5.



Neither is the rate parity or "most favored nation" condition upon which BNSF insists consistent with the economic well-being of Tex Mex or its customers. The interests of Tex Mex require that it retain the flexibility to establish divisions with its interline partners based upon the specific transportation circumstances associated with each piece of traffic (*e.g.*, route of movement, run through train services, pooled locomotives or other equipment, pre-blocking commitments, and joint marketing efforts). Rate parity or a "most favored nation" requirement tends to have a chilling effect upon the willingness of other interline rail partners to commit to efficiency generating service and marketing packages because the "most favored" railroad can demand the same divisions as the more efficient interline partner, yet without lifting a finger to help generate those efficiencies. Rate parity or "most favored nation" conditions, thus, allow the favored railroad to usurp the benefits of the interline arrangements developed by others.

It was out of concern that BNSF's continued objections may be interfering with the TMM/KCS relationship that KCS sent a March 9, 1998 letter to BNSF describing the precise nature of the Joint Venture Agreement and requesting that BNSF not interfere further with the joint venture relationship. KCS did not and still does not demand that BNSF not negotiate with or reach an agreement with Tex Mex. KCS only has insisted that BNSF not propose and insist upon terms in such an agreement that are inimical to the commercial relationship between TMM, KCSI, and their rail affiliates created by the TMM/KCSI partnership and Joint Venture Agreement.


The existence of the Joint Venture agreement does not bar Tex Mex from entering into agreements with other carriers, such as BNSF, provided that such agreements are negotiated at arm's length and on the basis of associated market considerations. TMM and KCS, as joint owners of Tex Mex, strongly encourage such agreements. An agreement between Tex Mex and

BNSF is in Tex Mex's self interest and therefore in the interests of TMM and KCS. There would be no reason for KCS or the Joint Venture to impede such an agreement, in spite of what BNSF suggests. BNSF's suggestion that the Joint Venture Agreement is restricting the ability of Tex Mex to cooperate with BNSF is, quite simply, in error.

In conclusion, the statements made by BNSF that suggest that the Joint Venture Agreement is impeding the competitiveness of a proposed BNSF/Tex Mex routing agreement to Laredo are unwarranted. Nothing in the Joint Venture Agreement prohibits a BNSF/Tex Mex routing agreement and indeed, such an agreement is in the self interest of Tex Mex and KCS. The real impediment to a BNSF/Tex Mex agreement has been BNSF's continued insistence that Tex Mex give it the same divisions as Tex Mex gives to KCS. Tex Mex and KCS are ready, willing, and able to continue negotiations with BNSF at any time. It is unfortunate that BNSF is attempting to handle private negotiations in a public forum rather than in private forums with all of the interested parties.

Respectfully Submitted this 24<sup>th</sup> day of April, 1998,

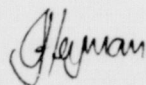
**Richard P. Bruening**  
**Robert K. Dreiling**  
**THE KANSAS CITY SOUTHERN RAILWAY**  
**COMPANY**  
**114 West 11<sup>th</sup> Street**  
**Kansas City, Missouri 64105**  
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**Samantha J. Friedlander**  
**TROUTMAN SANDERS LLP**  
**1300 I Street, N.W.**  
**Suite 500 East**  
**Washington, D.C. 20005-3314**  
**Tel: (202) 274-2950**  
**Fax: (202) 274-2994**

**Attorneys for The Kansas City Southern**  
**Railway Company**

## CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing **"REPLY TO THE BNSF APRIL 1, 1998 QUARTERLY PROGRESS REPORT"** was served this 24<sup>th</sup> day of April, 1998, by hand delivery, overnight delivery, or first-class mail in a properly addressed envelope with adequate postage thereon addressed to all known parties of record.



---

Ivor Heyman  
Attorney for The Kansas City Southern  
Railway Company



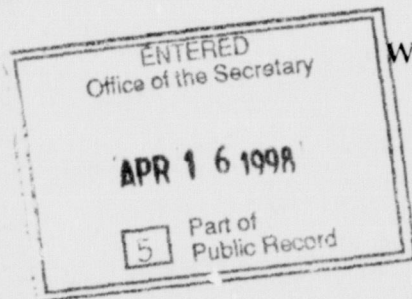
STB

FD-32760 (SUB21)

4-16-98

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ID-187159



187159

W. W. WHITEHURST & ASSOCIATES, INC.  
ECONOMIC CONSULTANTS  
12421 HAPPY HOLLOW ROAD  
COCKEYSVILLE, MARYLAND 21030  
PHONE (410) 252-2422

April 7, 1998

D

Honorable Vernon A. Williams  
Office of the Secretary  
Case Control Unit  
Surface Transportation Board  
1925 K Street, N.W.  
Washington, DC 20423-0001



ATTN: STB Finance Docket No. 32760 (Sub-No. 21)

Dear Sirs:

Please enter the undersigned as a party of record ("POR") with intent to participate in **new** STB Finance Docket No. 32760 (Sub-No. 21) Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company - Control and Merger - Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., and The Denver and Rio Grande Western Railroad Company, as referenced in Decision No. 12, service date March 31, 1998. Please include my name and address on the service list for receipt of all submissions of the parties and decisions in the case.

PARTY OF RECORD

William W. Whitehurst, Jr.  
W. W. Whitehurst & Associates, Inc.  
Economic Consultants  
12421 Happy Hollow Road  
Cockeysville, MD 21030-1711

This original and 25 copies are enclosed. Please notify me if there are any other requirements to become a party of record in this case.

Very truly yours,

William W. Whitehurst, Jr.

WWW:rtp

STB

FD-32760 (SUB21)

4-16-98

D

ID-187158



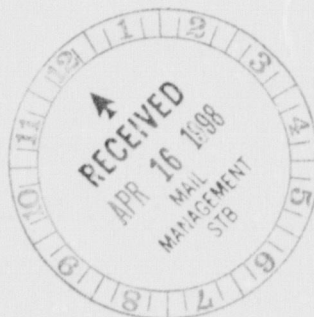
Knightsbridge Drive  
Hamilton, Ohio 45020  
513 868-4974, Fax: 513 868-5778

Richard E. Kerth  
Transportation/Distribution Manager—Commerce, Regulatory Affairs  
and Organizational Improvement  
Corporate Transportation/Distribution

187158



April 8, 1998



D

Mr. Vernon C. Williams, Secretary  
Surface Transportation Board  
1925 K Street, N.W.  
Washington, D.C. 20423-0001

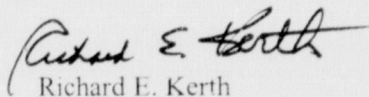
re: STB Finance Docket No. 32760 (Sub-No. 21), Decision 12: Union Pacific Corp.  
Et al. Control and Merger - Southern Pacific Rail Corp. Et al. Oversight  
Proceeding

Dear Mr. Williams:

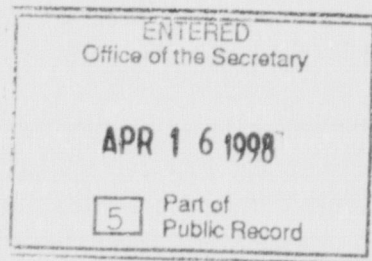
Enclosed for filing please find an original and twenty (25) copies of the Notice of Intent to Participate in the above captioned proceeding filed on behalf of Champion International Corporation. Also enclosed is a 3.5 inch IBM-compatible diskette containing the text of this material.

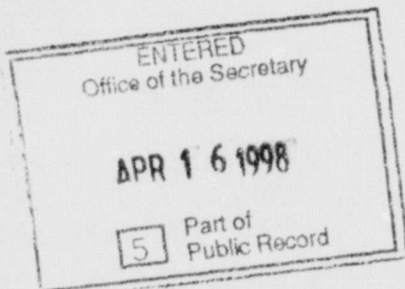
Champion International Corporation respectfully requests that our name be added to the Party of Record Service List and that we be served with all notices and orders issued by the Board in this proceeding.

Sincerely,

  
Richard E. Kerth

cc: All Parties of Record





**BEFORE THE  
SURFACE TRANSPORTATION BOARD  
U.S. DEPARTMENT OF TRANSPORTATION**



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Finance Docket No. 32760 (Sub-No. 21)

Union Pacific Corporation, et. al  
Control and Merger - Southern Pacific Corporation, et. al

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Champion International Corporation ("Champion"), pursuant to Oversight Notice Decision 12 served March 31, 1998, submits this Notice of Intention to Participate in the oversight proceedings as a party of record ("POR") and requests that it be appropriately placed on the Service List as such.

Champion previously participated as a party of record in Finance Docket No. 32760. Champion owns and operates four facilities dependent on the Union Pacific Southern Pacific Railroad ("UP/SP") in east Texas which have been impacted by the serious service difficulties since the merger (Decision No. 44 served August 12, 1996). Champion is interested in all requests for new remedial conditions and proposals for long term solutions affecting Houston and the Gulf Coast area to determine how those conditions may improve or hinder service to our business.

Champion respectfully requests placement on the Party of Record Service List and all notices and orders issued by the Board or other parties to this proceeding be served upon:

Richard E. Kerth, Transportation Mgr.  
Commerce & Regulatory Affairs  
Champion International Corporation  
101 Knightsbridge Drive  
Hamilton, OH 45020

Dated: April 8, 1998

Richard E. Kerth, Transportation Manager-  
Commerce & Regulatory Affairs  
CHAMPION INTERNATIONAL CORPORATION

STB FD 32760 (Sub 21) 3-30-98 D 186774



186774

**Shell Chemical Company**  
An affiliate of Shell Oil Company

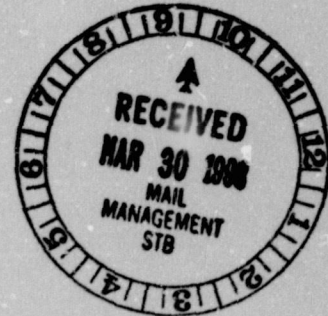


March 27, 1998

One Shell Plaza  
PO Box 2463  
Houston TX 77252

Mr. Vernon A. Williams, Secretary  
Surface Transportation Board  
Suite 700  
1925 K Street, N.W.  
Washington, D.C. 20006

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Re: Finance Docket No. 32760 (Sub-No. 21), Union Pacific Corp., et al. -- Control & Merger -- Southern Pacific Rail Corp., et al. Oversight Proceeding

Dear Secretary Williams:

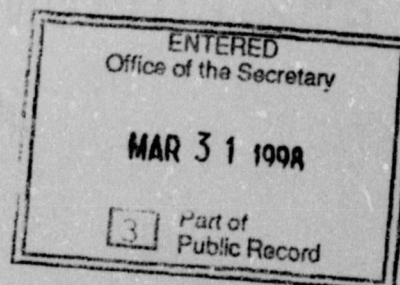
Enclosed for filing in the above referenced docket are an original and ten copies of the Joint Comments of Shell Oil Company and Shell Chemical Company. Also enclosed is a 3.5 inch diskette, containing the Joint Comments in a format which may be converted to Word Perfect 7.0.

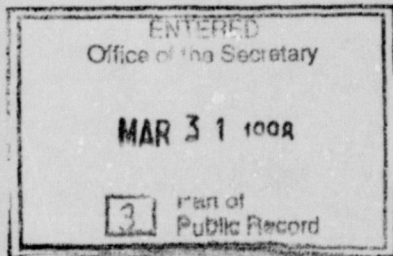
Copies of these Joint Comments are also concurrently served on all other parties of record.

Respectfully submitted,

*George H. Jelly*

George H. Jelly  
Senior Transportation Representative  
Land Transportation Department





BEFORE THE  
SURFACE TRANSPORTATION BOARD  
WASHINGTON, D.C.

FINANCE DOCKET NO. 32760 (SUB NO. 21)  
UNION PACIFIC CORP., ET AL  
- CONTROL & MERGER - SOUTHERN PACIFIC RAIL CORP., ET AL  
OVERSIGHT PROCEEDING

TESTIMONY OF SHELL OIL COMPANY AND  
SHELL CHEMICAL COMPANY

Shell Oil Company and/or Shell Chemical Company "for itself and as agent for Shell Oil Company" (hereinafter jointly referred to as "Shell") hereby file joint comments in support of the plan proposed by the Texas-Mexican Railway Company (Tex-Mex) and the Kansas City Southern Railway Company (KCS) to address rail service in the Houston area. Shell is utilizing the Tex-Mex under the current STB Emergency Order in an attempt to mitigate some of the adverse effects of the current UP service performance on our business units.

The recent rail service problems in the western U.S. and particularly in the Houston area have severely impacted Shell's ability to meet the needs of our customers. Significant shipment delays and the shortage of available tank and hopper cars for loading have resulted in numerous late deliveries and have required substitution of substantially higher cost alternative transportation, primarily motor carriage. Production schedules have also been adversely impacted, resulting in supply problems and increased costs. Previous Shell filings have detailed these matters.

Specifically, Shell supports the following actions by the STB to facilitate the implementation of the plan put forth by the Tex-Mex/KCS, much of which is consistent with our previous filings related to this matter:



1. The granting of permanent rights to the Tex-Mex to serve Houston shippers for both north and southbound movements. This will provide the certainty necessary to justify infrastructure investment by the Tex-Mex to more effectively service the Houston market. It will also provide shippers a viable alternative carrier on a long term basis, enhancing the competitive environment. It is generally recognized that increased competition induces improved service and tempers rate escalation, which are important and desirable components to transportation service for shippers in a market as important as Houston. These are also consistent with the goals of our national Rail Transportation Policy, as set forth in section 10101 of the ICC Termination Act of 1995.
2. Granting Tex-Mex access to the UP's Booth Yard, which is essential to facilitating the operation of the Tex-Mex to efficiently interchange traffic with the PTRR. If this cannot be accomplished through a private sector agreement, a divestiture order should be considered.
3. Mandating the establishment of neutral dispatching in the greater Houston area, including the participation of the PTRR and Tex-Mex, to ensure the fair and efficient use of all shared rail lines by all carriers. This would include very close scrutiny of the recent UP-BNSF joint line ownership agreement for the former Southern Pacific Houston to Beaumont line. If these private sector solutions do not prove workable, ordering the divestiture of the former Missouri Pacific line from Houston to Beaumont to the Tex-Mex should be strongly considered.
4. Ordering the involved carriers to implement a neutral switching operation that will service as much of the greater Houston area as is practical, providing alternative rail service to many shippers currently without any choice of carrier.
5. Facilitating the transfer to the Tex-Mex of the abandoned former Southern Pacific rail line from Rosenberg to Victoria, along with its connections at both ends, to provide increased capacity and improved efficiency for Tex-Mex movements between Houston and Corpus Christi/Robstown, TX.

Again, if a private sector agreement cannot be reached, a divestiture order should be considered.

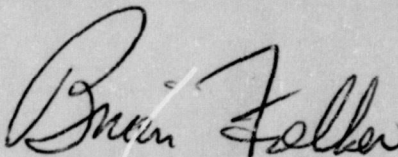


Please note that Shell, consistent with its desire to allow the development of private sector solutions to these problems, advocates consideration of divestiture of privately owned assets only if the involved parties are unable to reach agreement. We believe that the STB must play a significant role in getting the parties together to discuss such solutions.

Shell has taken an unusually strong public position on these matters. It is vital to Shell's ability to meet the needs of our customers that we have a strong, competitive and efficiently operated rail transportation network for the movement of our products. This has not been the case for the past eight months in the western United States. Shell has major production facilities in Houston, and a significant number of rail shipments from our Louisiana plants must move through Houston to their final destinations. We believe that establishment of the Tex-Mex as a permanent presence in the Houston market will be an important contribution to the efforts to address the long term needs of Houston shippers.

Respectfully submitted,

SHELL CHEMICAL COMPANY  
For itself and as agent for Shell Oil Company

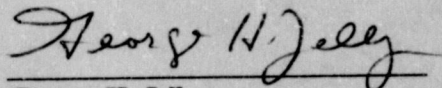


Dated: March 19, 1998

Brian P. Felker  
One Shell Plaza  
Post Office Box 2463  
Houston, Texas 77252

### **CERTIFICATE OF SERVICE**

I hereby certify that on this 30th day of March , 1998, copies of the Joint Comments of Shell Oil Company and Shell Chemical Company were served by first class mail, postage prepaid, in accordance with the rules of the Surface Transportation Board on the U.S. Secretary of Transportation, and all other parties of record.



**George H. Jelly**  
**Sr. Transportation Representative**  
**of Products Traffic**  
**Shell Chemical Company**  
**One Shell Plaza**  
**Post Office Box 2463**  
**Houston, Texas 77252**

STB

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Applicants' contrary evidence from its consultant Mr. Sharp<sup>29</sup> completely ignores SP's successful efforts in securing new customers for its coal and recent competition between the merging railroads. Mr. Sharp also ignored SP's own marketing efforts because he never admitted in his deposition in this proceeding that he spoke to a representative of SP, to a coal producer, or to a shipper, during the entire time he was preparing his Verified Statement. Sharp Deposition, Tr. 25-27,

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<sup>29</sup> UP/SP's failure to offer testimony from an UP or SP coal marketing official speaks volumes.

The Board committed error in not granting Entergy/WCTL's appeal, supported by WSC, to depose such officials. See Decision No. 20 (served March 21, 1996).

91, 181, and 199. As a result, his conclusions were largely at variance with the facts,

See Vaninetti V.S.

SP Chairman Anschutz confirmed what Witness Sharp apparently was not told -- that SP has been aggressively marketing coal to many shippers in the last couple of years, with favorable prospects for the future. Anschutz Deposition, Tr. 228-29, 236-37;

Witness Sharp's testimony was limited to research of publicly available data, which, in light of his flawed conclusions, apparently did not reflect SP's recent marketing successes for its coal against its PRB competitors.

Witness Sharp would have the Board believe that head-to-head competition between UP and SP for Western coal is "exceptionally limited," and that the merger "will enhance, not diminish competition." Application, Vol. 2, Sharp V.S. at 677, 685. Witness Sharp is wrong. UP and SP compete directly for many utility customers, yet SP often has prevailed. See generally, WSC Ex. 3, Vaninetti V.S.<sup>30</sup> Most of these utilities

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<sup>30</sup> Witness Sharp claims that SP's access to Union Electric's Labadie facility is inferior and that a combined UP/SP would streamline deliveries of high-Btu Western coal to the plant. Application, Vol. 2, Sharp V.S. at 680. Witness Sharp's testimony begs the obvious question as to why, if UP has superior access to the plant, SP was successful in wresting that business away from UP. The answer is simple -- SP offered competitively low rates. Applicants have offered no evidence that they will have any incentive to pass on any alleged savings from such

(continued...)



UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
SURFACE TRANSPORTATION BOARD

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Finance Docket No. 32760

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UNION PACIFIC CORP., et al. --  
CONTROL AND MERGER --  
SOUTHERN PACIFIC RAIL CORP., et al.

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VERIFIED STATEMENT OF ALEXANDER H. JORDAN

My name is Alexander H. Jordan. I am the Director of the Western Shippers' Coalition ("WSC"). WSC is an ad hoc coalition that was formed to represent the collective interests of many of the shippers who are located on or utilize the Southern Pacific Railroad ("SP"), which includes the lines of the former Denver & Rio Grande Western Railroad ("D&RGW"). WSC's members are located in California, Colorado, Kansas, Nevada, Oregon, and Utah. The members of WSC are listed in Appendix AHJ-1 accompanying this Statement.

I am also the President of the Utah Mining Association. In that capacity, I am familiar with the operations of many of WSC's members, and I have become at least generally familiar with the operations of those members of WSC who are not members of the Utah Mining Association. My office is in Salt Lake City, Utah.



lines of the D&RGW, and some of them ship bulk commodities over the SP line west of Ogden, Utah to Oakland, California, or east of Pueblo, Colorado to Kansas City, Missouri and beyond. Thus, they have a vital interest in the disposition of those lines, and in this proceeding.

WSC's members are largely bulk shippers, along with some related businesses. Their shipments tend to be from origins in those States to destinations elsewhere. However, some of their shipments are from origins in other States to their facilities. For example, Geneva Steel ships taconite ore from northern Minnesota to Provo, Utah (the location of Geneva Steel), and ECDC Laidlaw Environmental ships waste to Utah from various points around the country. The cars involved in the Geneva Steel movements are used to "backhaul" coal; in the case of ECDC

Laidlaw Environmental, the outgoing cars carry the coal, and the waste ECDC ships is "backhauled" to Utah.<sup>1</sup>

It was apparent to WSC's members from the time this merger was announced that it would have a great impact on WSC's members. Consider, for example, Geneva Steel's movement of

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<sup>1</sup> I realize that UP and SP think the taconite ore is the backhaul, and the coal is the fronthaul. Their basis for that claim is not clear to me. Putting aside the appropriate level of coal rates for the moment, UP and SP have their facts wrong, at least in the case of Geneva Steel. Geneva Steel arranged the taconite ore movement first, because that is what it needed; SP then conceived of the coal backhaul to improve the overall economics of the round-trip movement. SP has succeeded beyond its expectations, which is why it has become such an effective marketer of Uinta Basin coal. What is the "fronthaul" and what is the "backhaul" is probably not critical, since this is not a rate case.

taconite ore. SP succeeded in wresting that business away from in 1994, even though SP's route of movement (which includes the Wisconsin Central, via Chicago) was approximately 600 miles longer than UP's route. As has been widely reported, SP aggressively bid for Geneva Steel's business because it saw an opportunity that UP evidently did not see: to move coal to the Midwest in the same cars as the taconite ore is transported. SP was so surprised by the volume of tons of coal that was bid by electric utilities and others for the Geneva Steel backhaul that SP set out to secure additional coal business. It has succeeded in those efforts. An article in Trains magazine describing that story is attached to a November 1995 study prepared by our coal consultant, Mr. Gerald Vaninetti of Resources Data International in Boulder, Colorado, and which is appended to his Verified Statement being filed herewith.

It is that aggressive marketing of coal and other materials, particularly in competition with UP, that is the most obvious competition at risk in this proceeding. As Mr. Philip Anschutz, the Chairman of SP testified in his deposition: "Actually it had been reported there were very good feelings about SP. But it doesn't surprise me even if I hadn't have heard it, because we beat ourselves silly to try and increase markets for all coal producers and invested the money to back it up." Tr. 230.

Mr. Anschutz also admitted in his deposition in this proceeding that "what we're really talking about here is what's



in the best interest of the shippers. That's who the ICC is here protect. It's not KCS, you know, it's not Conrail. It's the shippers." (Tr. 207). I certainly agree with Mr. Anschutz about that. So far as I am aware, the ICC always interpreted the merger statutes to protect competition, and it specifically did so on behalf of the competition caused by D&RGW several times in the past. This transaction will have greater adverse impacts on the lines of the former D&RGW than any prior transaction of which I am aware, and thus the ICC's historic, consistent position in railroad merger cases to protect the competition from the D&RGW must be adhered to in the case.

## II.

### THE PURPOSES OF WSC'S PARTICIPATION IN THIS PROCEEDING.

One of the purposes of WSC's presentation is to show at the Settlement Agreement between UP/SP and BN-SF (the "UP/BN Settlement Agreement") does not provide protection for competition in SP's Central Corridor (including, of course, as explained above, the D&RGW lines).<sup>2</sup> Since the ICC has always provided protection for the D&RGW and the competition it creates, and since that competition is greater than ever from the SP, the merger of UP and SP should not be approved unless there is a different and better arrangement to protect competition in SP's

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<sup>2</sup> Mr. Rebensdorf, UP's Vice President of Strategic Planning, testified that the UP-BN Agreement would protect competition, but that was before he knew that the revenue/variable cost ratios for the rates charged BN-SF for trackage rights are actually much higher -- over 170 percent. See Rebensdorf V.S., Vol. 1, pp. 306-07 (before and after corrections).



Central Corridor. Although Mr. Robert Krebs, the President and Chief Executive Officer of BN-SF, spoke to WSC in January, he appeared to be somewhat unfamiliar with portions of the UP-BN Agreement, because he thought that it gave BN-SF "build-out" access to the coal mines in Utah, which it does not. The term "build out" in this context means literally to construct a railroad line from a designated point on the existing railroad to a customer's facility.

Another purpose of WSC's presentation will be to show that the proposed merger of UP and SP will have a serious, adverse effect on the economies of the States in which SP's Central Corridor is located, especially Nevada, Utah, and Colorado. Our consultant, The Kingsley Group, prepared a study of such effects (the "Kingsley Study"), using the State of Utah as a surrogate for Nevada and Colorado, because the merger would affect only a portion of Nevada and Colorado, but it would affect substantially all of the Utah economy. (I can personally attest that the proposed merger would affect nearly all of Utah, since the two railroads (UP and SP) exclusively serve essentially all of the State of Utah in which businesses or people are located.) The Kingsley Study accompanies this Statement as Appendix AHJ-2. The Kingsley Study concludes that the likely effect of this merger, if approved as proposed by UP/SP (and even with the UP/BN Settlement Agreement in its current form) would be to cause rail rates to rise substantially along the lines of the D&RGW/SP in Utah, Colorado, and Nevada. Those increased rail rates would substantially impair economic activity in the affected States,

substantially impair economic activity in the affected States,  
d cost thousands of jobs in Utah, as well as lesser numbers in  
the other affected States. The Kingsley Study concluded:

Couldn't federal regulators, charged with the responsibility to protect shippers from 'unreasonable' levels of rail rates, prevent hefty increases? Under current law, this isn't likely. Recent analysis of the revenue-to [variable] cost ratio, an important trigger for federal regulatory intervention, for traffic moving to and from Utah, suggests a ratio far below the hurdle rate for regulatory intervention. We estimate that at current revenue-to-[variable] cost ratio levels for Utah freight, it would take a 27% rate increase before significant regulatory response occurred [footnote omitted]. Applying this assumption through the economic impact model, assuming a -2.0 supply elasticity, results in an estimated subsequent loss of over 13,000 Utah jobs and over \$320 million in Utah household earnings. The fact that the current ratio is so far below the regulatory hurdle is in itself illustrative of the effectiveness of UP and SP competition in the region today. Its elimination could certainly cause a 'rubber-band' effect on rail rates.

Kingsley Study at 28-29. The Kingsley Study also concluded  
(at 28):

The results of this economic impact study are quite clear. Even conservative assumptions about the likely effect of the UP/SP merger, as proposed, on rail rates in Utah indicate significant risk for devastating economic impacts to the state's economy, assuming reasonable supply side cost elasticities. While UP/SP have attempted to design agreements to address competitive effects of the merger, it is highly likely these agreements will not succeed as replacements to effective competition in existence today in this region[.]

Thus, this merger will be devastating to Utah, Colorado, and Nevada, and have an adverse effect on the other States affected by SP's Central Corridor, unless the STB intervenes to provide a



competitive solution to the problems it would create for the Central Corridor, by revising the UP-BN Settlement Agreement or providing alternative competition by ordering divestiture of specific lines in the Central Corridor.<sup>3</sup>

The Kingsley Study also explained that the reasons that a combined UP/SP might increase rates or reduce service in Utah to the extent that doing so would hurt the State's economy are because a combined UP/SP would "quite likely" view the priority of providing service in Utah differently than SP now does, and similarly BN-SF might have a different priority than SP now does. Kingsley was right, because UP Chairman Davidson admitted that he and others at UP have described SP's pricing as "cash flow pricing" and that SP's pricing policy was going to have to change after the merger (see his Deposition Transcript at pp. 86-87, 100-51), nor could he give any assurances about rates in SP's Central Corridor after the merger (Tr. 154).

What is particularly troublesome about this proposed merger for the Nation is that Utah and Colorado are blessed with abundant supplies of low-sulfur, high-BTU coal which is needed by major "stationary sources" such as electric utilities under the Clean Air Act Amendments of 1990 to comply with the sulfur-reduction requirements of those Amendments. The merger of UP/SP threatens the economical availability of such coal. I am well

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<sup>3</sup> The Board should also revise the UP-Utah Railway Settlement Agreement to reduce its trackage rights fee to be paid by Utah Railway to the same level set for that fee in the UP-BN Settlement Agreement, for the same reasons.



aware that the members of the Utah Mining Association, as well as her members of WSC, compete with low-sulfur coal produced in the Powder River Basin of Wyoming and Montana, and with coal from the Hanna Basin of Wyoming (which is served only by UP, because of its historic land grants provided to it by the United States in the mid-19th century). While Applicants' consultant Sharp testified that there is very little such competition, we strongly disagree with his conclusion. He based his conclusion on library research of such things as data reported to FERC through 1994 (the last full year available to him). He also testified in his deposition that he did not discuss the subject of his testimony with anyone at SP, or with any coal producer or shipper. No wonder his testimony is so much in dispute.

A fatal flaw in Mr. Sharp's testimony is that he did not understand that SP-origin coal and UP-origin coal vigorously compete, particularly since January 1, 1995 when "Phase I" of the 1990 Clean Air Act Amendments was effective. Moreover, he did not understand that many electric utilities rely on competitive rates for SP-origin coal to restrain rates on UP- and BN-origin coal from the PRB. Mr. Vaninetti explains these subjects in detail in his Verified Statement. That competition -- which the merger would threaten, or even extinguish -- is at the heart of WSC's concerns in this proceeding.

Finally, what added to the concerns of WSC and its members was Mr. Rebensdorf's statement to WSC in November 27, 1995 that with a reduction in the number of trains in operation,

only essential maintenance on the D&RGW lines for 5 years after the merger, which would allow it to avoid raising rates. See Appendix AHJ-3 (my notes of Mr. Rebensdorf's Statement to WSC to that effect and my recollection, recorded the next day. The next day, I wrote: "UP may rationalize SP - will forego any maintenance capital on DRGW[.] less trains, maintenance \$ will remain low, ergo no increase in rates[.]"). The heavy, bulk commodities carried on those lines create a need for constant maintenance attention and track inspection in order to maintain competitive scheduling and meet shipper transportation requirements, including tight scheduling at facilities such as ports and powerplants, as well as to accommodate Amtrak. We concluded that the D&RGW lines are not important to UP, or at least that they are far less important to UP than other portions of UP's system, and far less important to UP than SP's current rate and service relationships with WSC and its members.

### III.

#### THE MOST IMPORTANT ISSUE IS WHETHER THE UP-BN SETTLEMENT AGREEMENT PROVIDES ADEQUATE COMPETITION IN SP'S CENTRAL CORRIDOR

I start from the premise that UP and SP would not have included SP's Central Corridor in the portions of the involved railroad systems affected by the UP/SP-BN-SF Settlement Agreement had they not believed that the Board was likely to conclude that the merger of UP and SP would have significant, adverse effects on competition for the traffic in SP's Central Corridor without



some sort of arrangement for new competition to replace what was st. I understand UP and SP Witnesses to concede the point in their testimony. See, e.g., the Verified Statement of Witness Rebensdorf; see also December 29, 1995 Comments of BN-SF (at 1). WSC, however, strongly believes that the UP-BN Settlement Agreement will not allow BN-SF to compete with a combined UP/SP.

The issue, then, is whether that Settlement Agreement adequately replaces the competition now being experienced from SP in the Central Corridor. The answer is an emphatic "NO!" Let me explain why that Agreement is not likely to create such competition from BN-SF, and will not replace what would be lost in the event the merger is approved.

First, more access for BN-SF will be necessary. In the current Agreement, BN-SF would only get access to facilities which are currently served by UP and SP directly, at the same facility. However, many shippers use trucks to rail loadouts of more than one railroad, or have multiple facilities and can shift operations from one to the other, having the same competitive effect on the carriers as if they were one facility served by both.<sup>4</sup> BN-SF should have received access to a much broader range

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<sup>4</sup> In this respect, WSC is seeking recognition of geographic competition faced by railroads which the ICC recognized since passage of the Staggers Rail Act of 1980. In the ICC's Market Dominance rules revised after Staggers, the ICC recognized that product and geographic competition, not just inter- and intra-modal competition, provide competition for railroad transportation. It would be irrational for the Board to pretend that railroads only face inter-modal competition, which is all the Settlement Agreement addresses. Our Comments accompanying  
(continued...)



of shippers on SP's Central Corridor and related regions. This

uld also ensure that the market accessible to BN-SF is large enough to entice serious competitive interest on the part of BN-SF. When Mr. Krebs, President and CEO of BN-SF, and his General Counsel, Mr. Moreland, met with WSC in January 1996, Mr. Moreland conceded that BN-SF obtains access to no coal mines in Utah under the UP/BN Settlement Agreement.

Moreover, the UP-BN Settlement Agreement gives BN-SF trackage rights to Stockton, California which allows it to get to the Ports of Los Angeles/Long Beach, California. UP and SP apparently contend that BN-SF will therefore be able to compete with a combined UP/SP for export coal shipments to the Ports of Los Angeles/Long Beach, California, and that BN-SF therefore will provide an adequate substitute for SP as a competitor to UP in that market. But the argument makes no sense, because the circuitous routing through Stockton, California combined with the excessive trackage rights fee BN-SF will have to pay to get to Stockton makes it extremely unlikely that BN-SF will effectively

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^(...continued)

this Verified Statement address the legal issues raised by this apparent dichotomy, but suffice it to say that a railroad should not be able to avoid a finding of market dominance because of geographic competition, and thus avoid jurisdiction by this Board to determine whether it is charging an unreasonable rate, then turn around and have this Board find that it does not experience that same competition in a merger context. It is the same competition. If railroads face geographic competition, as it must be presumed they do, given the ICC's and this Board's approach to market dominance, they face the same competition in the context of consideration of a merger. That competition must be considered under the merger statutes.

compete with UP for that business. UP will thus be able to extract more of the delivered price of the export coal from the coal producers in the Uinta Basin.

No wonder that Mr. Gerald Grinstein, retired Chairman of BN-SF, testified in his deposition in this proceeding that, in his judgment, the UP-BN Settlement Agreement's provision of trackage rights to BN-SF will not allow BN-SF to compete effectively with a combined UP/SP. Mr. Grinstein testified that he opposed the Agreement while he was still Chairman of BN-SF, and believes that trackage rights are an inadequate substitute for an ownership interest in a line. WSC agrees with Mr. Grinstein.

Second, a carrier independent of UP and BN-SF is necessary on SP's Central Corridor. The presence of an independent SP providing transportation of coal from Utah and Colorado coal mines (in the "Uinta Basin") provides an important, synergistic relationship between the railroad and the mines. The UP/SP merger, and the proposal to have BN-SF provide service only to those few points that are now served directly by both UP and SP, puts the unique, synergistic relationship at risk. Both UP and BN-SF have access to substantial supplies of coal in other regions (most notably, the Powder River Basin in Wyoming and Montana), and would not have the same economic incentive as an independent carrier with access only to Utah and Colorado coal sources to get Uinta Basin coal to market competitively. In turn, the failure to market SP-origin coal adequately would



jeopardize or destroy the viability of important elements of the economies in the regions of the coal mines in question. Stated differently, why would either UP or BN-SF aggressively market SP-origin coal, as SP has done in recent years, if they both have access to PRB coal, which is cheaper to mine and closer to most markets? The answer is they have no such incentive. Indeed, BN-SF has entered into no arrangements with any shippers of which I am aware to transport commodities for them in SP's Central Corridor, should this merger be allowed. BN-SF does not have facilities, equipment, or employees located in SP's Central Corridor, and will be dependent on a combined UP/SP to provide it services on a non-discriminatory basis. History teaches that trackage rights agreements do not provide non-discriminatory access, as SP itself has testified before the ICC in past merger proceedings (such as UP-C&NW).

Moreover, of the five new coal marketing opportunities identified by Witness Peterson in his Verified Statement, three are PRB shipments, and two are SP-origin movements. But one SP-origin opportunity is to replace coal now trucked to a nearby point in Wyoming, and the other SP-origin opportunity is export coal to Los Angeles/Long Beach. It is highly significant that UP could not identify a single new coal movement to the Midwest or East, despite SP's success in those areas. Obviously, UP does not intend to market SP-origin coal as a replacement for PRB coal. No wonder WSC's members, especially its coal-producer and electric utility members, are concerned. The loss of SP-origin



coal traffic, and the failure to increase the marketing of that al, will inevitably cause upward rate pressure and diminishing service to the other shippers on the D&RGW lines.

Third, the trackage rights fee to be paid by BN-SF is too high. That fee for use of UP/SP tracks would be 3.0 mills per gross ton-mile ("GTM") (for bulk commodities in trains of 67 cars or more) and 3.1 (for non-bulk traffic, and bulk traffic not in amounts at least equal to 67 cars). WSC Witness Fauth explains this problem in greater detail. Suffice to say that 3.0 mills per GTM will cause the trackage rights fee to exceed 5.0 mills per revenue ton-mile (i.e., of only the loading), and perhaps exceed 6.0 mills per revenue ton-mile. The average rate for bulk traffic these days is, apparently, about 11 mills per revenue ton-mile (see Exhibit 7 to Witness Gray's Deposition), and thus the trackage rights fee will make it very difficult for BN-SF to carry traffic at today's average levels. It appears certain that BN-SF would, therefore, raise its rates to cover its costs, earn a return, and (perhaps) provide a differential to cover fixed costs of non-captive traffic. Why would it do anything else? Thus, the Board must examine the trackage rights fee level under the UP-BN Settlement Agreement, and decide whether it should be approved. For these reasons, and those set forth by WSC Witness Fauth in his accompanying Verified Statement, I believe strongly that the Board must reduce the trackage rights fee in the UP-BN Settlement Agreement to 2.0 mills per GTM (or less) to ensure a realistic opportunity for BN-

SF to compete. Otherwise that Settlement Agreement is useless, least to preserve competition in SP's Central Corridor.

Fourth, BN-SF should be required to pay an annual up-front fee for use of the Central Corridor, which could be credited against future traffic, to demonstrate its commitment to carry traffic there, or else the Board should conclude that BN-SF has no intention of playing a significant role in the Central Corridor. UP/SP states in the Application that it expects BN-SF to penetrate approximately 50 percent of the markets created by the Settlement Agreement. But that is just an estimate with no basis in hard evidence. Nowhere, for example, is there evidence of even one contract between BN-SF and a shipper for transportation in SP's Central Corridor, if the merger is approved. In discovery, BN-SF admitted it has no formal operating plan for the Central Corridor<sup>5</sup> and it cannot be presumed that BN-SF will aggressively market coal and other commodities in SP's Central Corridor if BN-SF has no investment whatever in the Central Corridor, and no obligation to pay

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<sup>5</sup> BN did file testimony on December 29, 1995, and UP and SP may claim that some of that testimony constitutes an "operating plan," but it does not, in that it does not commit to operating any trains over the Central Corridor, or otherwise provide details of such transportation. It also does not indicate the terms under which BN-SF would be willing to make a binding offer to carry commodities in the Central Corridor, at terms existing customers of SP could compare to their current transportation rate and service package. Without such a commitment, the words uttered by BN-SF are just platitudes, and offer no comfort whatsoever to shippers who may seek to use BN-SF after the merger. By then, it would be too late to compel BN-SF to offer reasonable terms and conditions.



anything unless BN-SF uses the trackage rights granted to it.

: analysis by WSC Witness Fauth indicates that BN-SF will be able to participate in less than 10 percent of Central Corridor traffic. Obviously, if BN-SF has a significant equity investment in the lines in question, or is required to make a lump-sum payment at the beginning of each year that was then credited to BN-SF by UP/SP for BN-SF's net benefit, it would have a greater incentive to serve SP's Central Corridor than it would under the current UP/BN Settlement Agreement. If some of BN-SF's costs for operating over SP's Central Corridor were "sunk" (to use the economic parlance) and therefore credited against traffic covered by BN-SF, that would reduce the incremental cost to BN-SF of each movement of traffic and simultaneously give BN-SF an incentive to carry such traffic there so as to recover its investment.

Fifth, service problems and penalties are certain for BN-SF that would not be true for an independent carrier. Under the current agreement BN-SF trains would be controlled by the dispatching office and yard operations of UP/SP. WSC believes that BN-SF will likely be discriminated against by UP/SP, regardless of the language of the Settlement Agreement. Certainly, meaningful penalties must be imposed on UP/SP if it does not maintain appropriate, neutral, Board-imposed service standards, and if the Board does not grant WSC's request for divestiture or trackage rights. SP itself complained to the ICC that UP had not appropriately handled SP's trains in places where



SP operates under trackage rights from UP.<sup>6</sup> Also, Mr.

bensdorf's admission to the WSC that UP does not plan to do more than essential maintenance on the D&RGW lines after the merger highlights the threat to competition that this merger will create. For all these reasons, an independent carrier which can meaningfully compete with UP/SP and BN-SF, particularly for coal shipments but also for other commodities, would be operationally superior to the assumption that BN-SF will be a meaningful, capable competitor to UP. Obviously, an independent carrier with an ownership interest in the lines at issue would be most likely to provide the sort of meaningful competition that SP now provides for traffic on its lines.

Sixth, the admission by Applicants that they intend to reroute traffic away from the Central Corridor will further drive the costs associated with the remaining traffic and cause upward pressure on the rates for that traffic. Applicants claim, as one of the "benefits" of the merger, that they will be able to route through traffic around SP's Central Corridor, either north on the UP main line across northern Utah and southern Wyoming, or south through El Paso, in reality means that about one-half of the current traffic on SP's Central Corridor will apparently be

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<sup>6</sup> SP's trackage rights from Pueblo, Colorado to Kansas City, Missouri were themselves granted to D&RGW in the UP/MP/WP merger. Now, UP would abandon the line (and thus the trackage rights) the ICC thought so important that it compelled UP to give them to D&RGW. Presumably, the ICC thought the shippers using that line were entitled to continued service over it. There is no reason to believe it is any less important now.

rerouted. See Volume 3, pp. 384-90, and Witness Peterson's statement. At present, there are apparently 24 trains per day (12 in each direction over the Central Corridor) and the re-routing planned by UP would reduce that number by 11 (Vol. 3, page 384) to 12 or so (there is some approximation by Applicants involved, and the numbers used by them are averages). Applicants further assume (id.) that BN-SF will move 6 trains per day (3 in each direction), but there is absolutely no direct evidence of that, from either UP/SP or BN-SF. Apparently, all of the merchandise and intermodal traffic would be re-routed, leaving only the traffic originating or terminating in the Central Corridor. That would largely leave the bulk traffic of the members (or former members) of WSC, including the taconite ore traffic to Geneva Steel, and the waste traffic of ECDC Laidlaw Environmental.

The result of the re-routing will be to reduce the traffic base in the Central Corridor by either 25 percent (24 trains per day to 18, including the assumed 6 trains per day of BN-SF), or 50 percent (without the BN-SF trains). The result of that reduction in traffic would increase the unit costs of the remaining traffic, under the universally accepted principles of "economics of density" followed by the ICC and this Board. SP has been able to increase its coal and other business in the Central Corridor, thus reducing its unit costs under the principles of economics of density, whereas UP's and BN-SF's



apparent lack of interest in SP's Central Corridor is clear, and  
-SF apparently lacks interest now, too.

IV.

UP'S REFUSAL TO DEAL WITH WESTERN SHIPPERS' COALITION

The concerns I just listed were provided by letter to UP on November 30, 1995. A copy of our letter to UP is appended to this Verified Statement as Appendix AHJ-4. The letter was not confidential, nor was confidentiality requested with respect to the letter. The purpose of the letter was to seek to resolve these concerns with UP. The letter represented the culmination of a substantial effort by WSC and its members, who collectively desired to resolve this matter with UP so as to avoid the need to litigate this matter before the Board. UP never responded to our letter; instead, Mr. Rebensdorf told me that the discovery process in this proceeding prevented UP from responding to our letter. Nevertheless, we continued to press for a meeting to discuss the subjects raised in our letter of November 30, 1995, and offered to discuss the matter in strict confidence. UP did not accept our offer to meet at any time after we sent our letter. Thus, WSC's efforts to negotiate a resolution of this matter with UP failed because of UP's refusal to meet to discuss these specific matters. We regret that UP refused to meet, but would be pleased to meet with Mr. Rebensdorf or any other representative of UP if the Board were to direct UP to meet with us in a good-faith effort to resolve our concerns.



V.

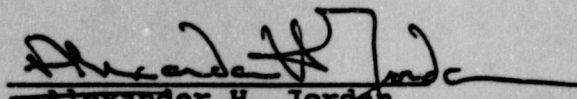
APPROPRIATE RELIEF

WSC has concluded, for the reasons I have already stated, that BN-SF will not provide effective competition in SP's Central Corridor. It is a given that UP cannot be assumed to provide adequate competition for coal from Utah and Colorado, and for other commodities that are also subject now to intramodal competition, for the reasons I and the other WSC witnesses have explained. WSC certainly is unwilling to assume that UP will provide competitive rates from present SP origins, as compared to UP-origin coals such as PRB or Hanna Basin coal. Recently there have been substantial capacity constraints for PRB coal shipments. Another coal shipper recently had to sue BN-SF for breach of contract on a PRB coal movement, because BN-SF has not been able to deliver all of the coal the electric utility in question needs. Given Mr. Davidson's negative comments about SP's "cash-flow" pricing and his apparent determination to raise rates to or from SP origins or destinations after the proposed merger, it stands to reason that the effect of allowing UP effectively to gain monopoly control of present SP coal origins, in addition to its existing monopoly over Hanna Basin coal, and in addition to the capacity constraints being experienced for PRB coal, would be to drive up the rates for coal from origins in SP's Central Corridor.

Therefore, the Board must allow another carrier not aligned with either Applicants or BN-SF to preserve effective


competition for Uinta Basin coal and the other traffic in SP's Central Corridor. WSC supports the efforts of other carriers, such as Montana Rail Link, KCS, Wisconsin Central, and Conrail, to require divestiture of SP's Central Corridor. In the alternative, an effective trackage rights agreement should be compelled, with the types of problems I have addressed remedied before the merger is approved. Unless the Board requires divestiture of SP's Central Corridor (or, at least, an effective trackage rights agreement), WSC opposes the proposed UP/SP merger.



  
Alexander H. Jordan

Subscribed and sworn to before me

is 2<sup>nd</sup> day of March, 1996.

  
\_\_\_\_\_  
Notary Public



**WESTERN SHIPPERS' COALITION**

**COMPANY**

AKZO Nobel Salt  
Andalex Resources Inc.  
ARCO Coal Company  
Ash Grove Cement  
Circle Four Farms  
Coastal Coal  
Colorado Mining Assoc.  
Continental Lime  
C.W. Mining Company (a/k/a Co-Op Mining Company)  
Eagle Picher Minerals, Inc.  
ECDC Laidlaw Environmental  
Farmland Industries, Inc.  
Geneva Steel  
Intermountain Power Project  
Interwest Mining  
Kennecott Utah Copper  
Magma Copper  
Metropolitan Stevedore Company  
Moab Salt  
Moroni Feed Company  
PacifiCorp  
Public Service Company of Colorado  
Savage Industries, Inc.  
Sierra Pacific Power  
Utah Mining Association  
Western Coal Transportation Association  
White Oak Mining (a/k/a Kiscaden Brothers)



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**Economic Impacts on the State of Utah**

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**of the proposed**

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**Union Pacific - Southern Pacific Merger**

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*Prepared by*  
**The Kingsley Group**  
*for*  
**The Western Shippers Coalition**  
**Salt Lake City, Utah**

February, 1996

**THE**  

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**KINGSLEY**  

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**GROUP**

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# I. INTRODUCTION

## Industry Background

The United States railroad system, most of which was built in the late 1800's and early 1900's, revolutionized land transportation for both passengers and freight. For sixty years the railroads in the US were the most efficient and dominant mode for long distance transport of passengers and product. With the construction of the Interstate highway system following WWII, and the ever expanding size and weight limits for trucking, rail efficiency was surpassed for many types of freight haulage by the surging motor carrier industry, resulting in falling rail activity.

In the decades after WWII, but prior to 1980, the law continued to view railroads similar to public utilities despite the growing competitive threat from motor carriers. This legal and regulatory environment was a throwback to the days when rail carriers were, in many instances, monopolies and shippers required protection from "unreasonable" pricing practices and service failures or reductions. Railroads were obligated to provide needed services to all. By 1980 however, the inconsistency between the regulatory environment and actual market forces put a squeeze on railroads which threatened their financial viability, as well as the important services they provided to shippers.

The Staggers Act of 1980 liberalized rail industry commercial restrictions and brought the regulatory environment more into line with the competitive situation faced by the rest of the freight transportation market. Collective rate making was abolished and state regulation effectively ended. Additionally, rail line abandonment procedures were simplified and made less political.

The railroad industry now had the flexibility to merge and divest segments of rail companies in order to:

- establish smaller railroads with lower cost structures and customer focused operating rules.
- gain efficiency through consolidation and offer single-line service in important freight lanes.
- reestablish the rail industry as a viable competitive mode of transportation.

Deregulation has created an intensely competitive multimodal environment for freight haulage, giving producers in the US a significant advantage in the global markets in which they compete. Mergers and acquisitions have been one of the more important means by which the US rail industry evolved into the competitive, and largely successful, position they are in today. The number of "Class I" or large-sized railroads in the US has fallen from over 40 in the 1950's to less than 10 today. The most notable example is the recent merger of the Burlington Northern and Santa Fe railroads, the largest merger in US history. This consolidation has resulted in more ton miles of freight moving on only half the track that was in service 50 years ago.

As the size of rail mergers have grown, so too has the need to protect competition and prevent the development of monopolistic entities. The Surface Transportation Board, the successor to the Interstate Commerce Commission, continues the process of reviewing rail merger petitions with the same main objective - to insure effective competition.

### Overview of the UP/SP Merger

On November 30, 1995 the Union Pacific and the Southern Pacific (UP/SP) petitioned the regulatory authority (then ICC, now STB) to merge, which if approved, would create the largest railroad in US history<sup>1</sup>. UP/SP's petition asserts that in light of the recently approved Burlington Northern Santa Fe (BNSF) merger, a combined UP/SP is



necessary to ensure a true competitor for the BNSF. The UP/SP offer testimony that the SP will not be able to survive on its own, and identify significant cost savings resulting in the consolidation of the two operations, which would improve service and value to both shippers and shareholders. Supporters of UP/SP petition indicate a preference for two large strong railroads in the western US, versus the alternative of a "mega" railroad (BNSF), a large strong railroad (an independent UP) and a large weak railroad (an independent SP). In addition, UP/SP's accompanying agreement with the BNSF, which is subject to merger approval, provides for both BNSF and UP/SP to operate on separate routes along the I-5 route, an important freight corridor which, for lack of single-line Class I service, has been dominated and congested with truck traffic.

In anticipation of regulatory mandates to protect competition, and in order to curtail opposition, the UP/SP agreed to provide over 3,800 miles of trackage rights to the newly merged BNSF as a proposed attempt to offset admitted reductions in transportation competition resulting from the merger.<sup>2</sup>

The BNSF merger is referred to often in discussions surrounding the UP/SP petition. The BNSF merger, like the UP/SP petition, combined two very large carriers. The critical difference in these two "mega" mergers is the effect each might have on freight competition. The BNSF merger involved a small percentage of track mileage on which the two systems ran in parallel. Parallel track in this sense gives a rough measure of the scope of competitive shrinkage from a proposed merger. The UP and SP systems have many tracks that run parallel, more than 4,000 miles, or 11% of the combined systems. The most prominent segment within this 11%, and the setting for this study, is known as the central corridor, roughly defined as the rail routes connecting Denver and Stockton, CA, via Utah and Northern Nevada.



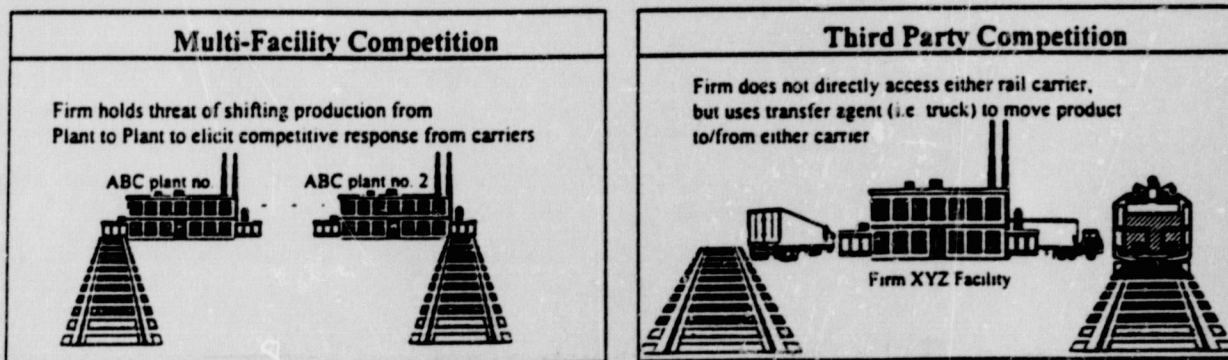
## Merger Related Competitive Assessments

Central to the public policy questions surrounding UP/SP's petition is the identification of competitive effects. The Surface Transportation Board (formally the Interstate Commerce Commission), charged with answering the UP/SP merger petition, is interested in assessing the competitive impact of such a combination and deciding on solutions to prevent elimination of competition. Specifically, of interest will be defining "2 to 1" shippers (and the size of their freight bill). That is, identifying shippers who are currently served exclusively by the two carriers petitioning to merge. In its application, the UP/SP have admitted the merger so affects a very large group of shippers in the western US, representing \$900 million in annual freight bills, or over 5% of the entire rail freight market in the western US.<sup>3</sup>

### *The "2-to-1" Issue*

The UP/SP approach of defining "2 to 1" includes freight moving from specific locations where UP and SP currently has exclusive rights to operate. Many have argued that this approach is too limited. Arguably, the UP/SP approach ignores traffic from locations which are physically served by only one of the two carriers, but where shippers have other means to elicit competitive interest by the carriers for the freight associated with these sites. Numerous examples exist of this sort of competition which generally falls into two categories: multi-facility, and third party facility competition.

Illustration #1



To illustrate, a waste disposal operator with two facilities, each exclusively served by the carrier, can shift inbound waste from one facility to another, creating incentive for carriers to compete with service and rates. This would be a good example of multi-facility competition that does in fact exist, but is ignored by the UP/SP definition of "2-to-1".

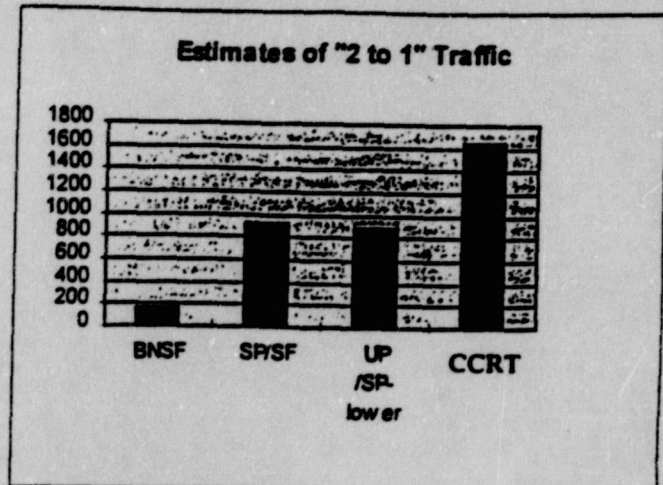
Likewise, third party competition is aptly demonstrated by the livestock feeder who contracts to inbound feedstock by either rail carrier depending on competitive service options. Traffic is then transloaded to truck at either of the facilities wedded to each railroad, which moves the grain from the one rail line or the other to the feeding facility. Again we see real competition that now exists, and would be eliminated with the UP/SP merger, but is not accounted for in the UP/SP accounting methods of "2 to 1". Most importantly however, the UP/SP agreement with BNSF is designed to offset only those "2 to 1" situations in their limited approach, and does not address the sort of competition demonstrated above.

A broader definition of "2 to 1" has been offered by the Coalition for Competitive Rail Transportation (CCRT)<sup>4</sup>, which identifies all rail freight traffic associated within business economic areas<sup>5</sup> exclusively served by UP/SP. The CCRT has estimated the size of the "2 to 1" freight market as \$1.65 billion annually. UP/SP, of course, would argue that this approach over states true "2 to 1", in that it would include shippers currently served by only one carrier, which never had any meaningful ability to induce carrier competition freight.



The debate surrounding the validity of these two approaches is unproductive. In fact, the two approaches serve as useful upper (CCRT) and lower (UP/SP) limits for a highly probable "2 to 1" range of \$.9 to \$1.65 billion annually. More important however, is the fact, that even the lower limit of the range is at

Graph #1



an unprecedented scale for mergers gaining approval, and very close to the magnitude of "2 to 1" effects estimated for the denied Santa Fe/Southern Pacific merger application of 1987. As the graph above depicts, the recently approved BNSF merger included less than 1/2 the amount of "2 to 1" traffic than the lower limit provided by the UP/SP. This fact in itself should prudently cause the UP/SP merger proposal, including their voluntary proposals to offset competitive shrinkage, to be the most scrutinized and conditioned rail merger proposal in US history.

The magnitude of the potential for negative competitive effects increases the likelihood of eventual rail costs increases in the form of higher rates or reduced service will happen in Utah, and along the central corridor. It is important that decision-makers understand the broader economic impacts that would result from this potentiality, to ensure that such a merger, if approved, provide for meaningful competitive alternatives, similar to that currently offered by an independent UP and SP today.

### Economic Impact Study Overview

The Kingsley Group was retained by The Western Shippers Coalition to assess the possible effects of the proposed Union Pacific/Southern Pacific merger to the economy of the State of Utah. Specifically, The Kingsley Group was tasked with analyzing the

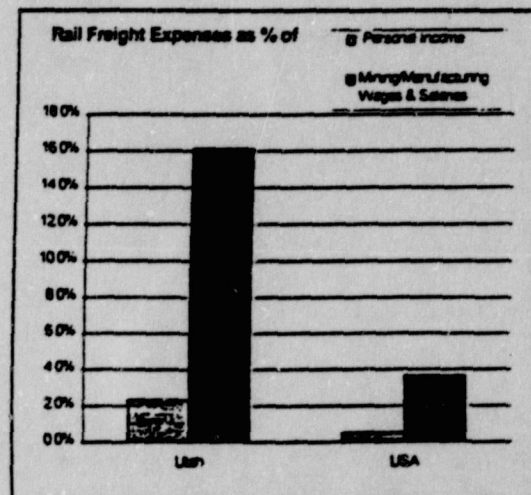


possibility of reduced competition, increased rail rates and reduced service to industries reliant on rail service and the subsequent effects that possibility would have on state employment and income.

With the announcement of intent to merge by the Union Pacific and Southern Pacific railroads (UP/SP), questions have arisen within the ranks of businesses and communities that rely on these two vast and competing western rail carriers. Concern over the proposed merger's direct effects on the service and rates rail shippers currently experience and, perhaps more importantly, the effects on employment and income on their businesses and in their communities is understandable and prudent. No other state has more reason to be concerned about this merger than the State of Utah. Not only

UP and SP the only large rail carriers serving the Utah economy, but as this graph illustrates, the Utah economy is more reliant on their service, per dollar of state income, than is the case in the US as a whole.<sup>6</sup>

Graph #2



To their credit, as mentioned in the introductory remarks, the UP/SP has attempted to address the concerns of shrinking competition brought on by the merger through an accompanying agreement with BNSF, the other large rail carrier in the western US. This agreement provides BNSF the option to offer service in Utah and along the "central corridor", as well as other competitively affected regions of the country. Despite this attempt however, concerns still remain that the level of freight rates and rail service resulting from the competition which now exists between the UP and SP, will not be maintained as a result of the agreement with BNSF.<sup>7</sup>

The purpose of this study is to assess the affects of a change in competitive behavior in Utah's rail freight market as it relates to state employment and income. The objective is to state, in broad economic terms, the importance of maintaining the level of competitive rail behavior currently experienced in Utah. Our goal is to inform the public, government officials, traffic managers, and businesses of the importance of this matter to the State of Utah. Furthermore, we hope to help the UP/SP understand the uniqueness of this region and facilitate the process of developing alternative solutions that will result in Utah offering its unqualified support of the merger.



## II. APPROACH & METHODOLOGY

### Measurement Approach - Geographical Scope

The study is confined to the State of Utah for two specific reasons. First, it is a fair representation of the Central Rockies region (Northern Nevada, Utah, and Western Colorado) through which the central corridor rail routes run. The UP/SP proposed merger would, of course, eliminate one of the two large rail carriers offering service. This is true for only parts of Nevada (northern half) and Colorado (western half). Second, the State of Utah represents a statistical segment for which information used in the modeling of economic impacts presented herein, is readily available.

### Measurement Approach - Economic Relationships Scope

At the outset of this analysis, the impact of the UP/SP merger on the Utah economy was divided into four distinct categories:

- Rail competitive effects,
- Rail efficiency effects
- UP/SP restructuring effects
- UP/SP equity-ownership effects

Further, it was determined that the rail competitive effects on freight markets in Utah, and subsequent effects on employment and income, even if modest changes in rail cost are assumed, far outweighed the effects of the other three categories. This conclusion can be drawn from even a cursory examination of the impact of rail efficiency, UP/SP restructuring, and UP/SP equity-ownership might have on the State of Utah.



### *Rail Efficiency Effects*

The gains Utah shippers will receive from the efficiency generated in a UP/SP merger are two fold. First, as UP/SP have testified in their petition, reduction of redundant operational activities and administrative overhead will reduce the overall unit cost the UP/SP system would have to contend with, and their shippers should share in some of this efficiency through reduced rates, improved service and operational performance. Secondly, a combined UP/SP system offers new single line service to Utah locations for those locations which previously could be reached through a UP/SP joint movement.

How would these benefits accrue to Utah? A reduction in UP/SP costs could not reasonably be assumed to transfer over to the shipper automatically. That transference comes as a result of the price mechanism in a reasonably competitive market. UP/SP would "have" to share its newfound efficiency only if a competitor threatened to undercut with higher valued service or lower prices. Only in that circumstance could UP/SP rationally be expected to "share" its newfound cost savings with Utah shippers.

Secondly, the most important new single line service identified in the UP/SP merger comes as a result of a side agreement with the BNSF to put in place two single line carriers along the Interstate 5 corridor stretching along the west coast from Seattle to Los Angeles. It is doubtful that this corridor offers much additional market access value to shippers originating or terminating in Utah.

### *UP/SP restructuring effects*

UP/SP management have indicated in their petition that they intend to eliminate 184 railroad jobs in the State of Utah as a result of the proposed merger. While this effect is significant to the immediate households involved, it is overshadowed, to the point of statistical insignificance, when compared to the direct effects on Utah competitive

position and subsequent changes in overall employment and income that will result from changes in Utah rail freight charges. To illustrate, the 184 jobs lost from UP/SP restructuring represents only 37% of the loss Kingsley estimates Utah will experience from a 1% increase in Utah's freight charges. In short, Utah is far more reliant on UP and SP as rail service providers and competitors, than they are reliant on the UP/SP as employers.

#### *UP/SP Equity-Ownership Effects*

To the extent Utah households are shareholders of UP and SP corporations, the Utah economy will benefit from any financial gains made by the UP/SP through improved equity value or higher dividend income that might accrue as a result of the merger. In 1994 12.4%, or \$4.1 billion in Utah personal income came from dividends, interest income and rents.<sup>8</sup> Assuming that UP/SP dividends paid to Utah residents represented even 1% of this income source, a very unlikely high percentage, a 25% gain in UP/SP dividend payments resulting from the merger would result in a \$10 million dollar increase in Utah state income. Our analysis of rail competitive effects indicate this gain could be wiped out with less than a 1% increase in rail freight rates in Utah, relative to non-Utah rail shippers. The lack of significance of the impact from corporate ownership of UP/SP in Utah is indicative of the fact that UP/SP as a dividend income source, or equity source for Utah households is insignificant in comparison to the importance of UP and SP as effective, competing, rail service providers.

Given the apparent lack of importance in three of the four areas of potential economic impact to Utah resulting from the merger of UP/SP, the present analysis focused on modeling the chain of economic events encompassed within the rail competitive impact category, making the simplifying assumption that the other three economic impact categories are insignificant or mutually offsetting in their effects on the Utah economy.



## Economic Impact Model - Review of Measurement Process

The measurement process involved herein is a process of aligning economic events related to competitive effects within the rail freight market, and linking them based on sound economic theory and empirical data. Kingsley has constructed a economic impact model which solves for employment, earnings, and total output changes in Utah resulting from a change in rail rates in Utah.<sup>9</sup> The model is described in the following table which identifies five sequential events or steps, three of which are necessary intermediate steps to get from UP/SP merger to Utah employment and income effects. The linkage between each event and its proceeding event is also stated, with a note as to the means or resources enabling the link to be established in the model. Presentation of results in this framework enables more than just a deeper understanding of measurement results, but allows the reader to form his/her own impressions as to the strength and validity of the elements and assumptions usually so critical in this type of economic analysis.

Figure #2

Summary of Impact Analysis			
EVENT	INTERMEDIATE EVENT	LINK to proceeding event	Means to establish LINK
Supply side concentration of rail service in Utah, relative to competitors		Rational Behavior Supply/Demand Economic Model	Test various scenarios
	Factor cost increase for rail service in Utah, relative to competitors	Importance of cost of rail inputs to total costs in Utah	USDOC 1987 Benchmark Input/Output Tables <sup>9</sup>
	Total cost increase in Utah, relative to competitors	Cost-to-Output elasticity	Current literature and economic thinking <sup>10</sup>
	Reduction in participation in end markets by, and output of Utah, relative to competitors	Relationship of Total Output, and Employment by sector in Utah	USDOC, 1992 Multipliers for the State of Utah <sup>11</sup>
Reduction in income and required employment in Utah			



## Post Merger Scenarios

Linking our first two economic events, the proposed merger of the UP/SP and changes in Utah rail rates, is a difficult one to estimate. This question, after all, is the central debate in the regulatory proceeding surrounding this petition. However, the following issues illustrate the considerable risk for reduced competition, subsequent rate pressure, and/or service reductions to the State of Utah:

- UP/SP's own assessment of the record breaking competitive impacts,
- our description of the "2 to 1" issue and the possible understating of competitive effects put forth by UP/SP,
- the questionable prospects that the BNSF agreement UP/SP has put forth, will in fact be a viable solution to the reduction in competition in Utah.

The question should perhaps be rephrased as to how important it is to the State of Utah that rail service related costs not go up relative to Utah's economic competition in the post merger scenario. To answer this question, we offer four alternative scenarios representing possible outcomes to this merger for Utah rail shippers. The scenarios, stated in rail freight rate changed, are processed through a comprehensive set of analytical steps in the economic impact model, thus being converted into Utah employment and income changes. The range of rail price changes so processed include:

**Scenario #1: 5% decline in rail rates**

**Scenario #2: 10% increase in rates**

**Scenario #3: 20% increase in rates**

**Scenario #4: 30% increase in rates**

Should service reductions, rather than rate increases actually take place in the post merger environment, a simplifying assumption is made that these rate scenarios could serve as a proxy for any combination of changes in rail freight rates or service having the equivalent effect on shippers logistics cost structure.

### *Rail Cost Change Effect on Utah's Total Production Cost*

Having established our range of going in exogenous assumptions, our first step will derive percent of total cost changes by sector from a given change in rail costs, a proportion of rail cost to total cost, and an adjustment factor based on Utah relatively high use of rail as a input. The Kingsley model utilizes an Input/Output table, which contains values of rail cost-to-total cost for each of 99 sectors of income and employment.<sup>10</sup> In addition a Utah adjustment factor for intensity of rail use of 4 is incorporated into the model at this point to reflect the relative intensity of rail dependence in Utah. This derives directly from the fact mentioned above that Utah's freight bill is more than 4 times higher, as a percent of total state income than that for the entire US.<sup>7</sup> From this portion of the model, we estimate that the total cost of production in Utah will increase 0.6% as a result of a 10% increase in rail rates.

### *Effects of Total Cost Increase on Utah's Output and End Market Participation*

Changes in a producer's cost structure relative to competitors, such as a potential change in rail rates for Utah shippers, represent a change in the competitive playing field. Utah producers would be left with a few tough options in this setting. Substituting the now higher cost input (rail) for lower cost options (truck) may be one possibility. Could Utah's coal mines, steel mills, and other business substitute motor carriers for higher priced rail? If so this would reduce the effect of a rail price change on Utah output. Given the cost structure of motor carriers versus rail, however, motor carriers could not reasonably be expected to provide competitive relief for bulk traffic in Utah's mining and durable manufacturing base.

In a perfectly competitive market, going out of business is the only option for affected producers, as competitors with lower costs are able to undercut output prices and take market share away. To the extent that producers end markets are not perfectly



competitive, conditions may exist that permit a slower process of defining market share over time rather than immediate elimination of share.

Are the markets Utah producers compete in perfectly competitive? Perhaps not in a text book sense, but some characteristics do suggest a sliding scale relationship between change in cost and output could be faulty. The rail-reliant industries of Utah could be characterized fairly as representing very small portions of the global markets in which they compete (i.e. markets with large numbers of producers), and produce goods which typically have little differentiation from one producer to another (durable goods, mining), both characteristics of a "perfectly" competitive market. This evidence suggests that the effect on Utah production from a Utah-only increase in rail rates would be severe, such that a modest reduction in cost competitiveness might lead to insolvency.

While economic theory offers some insight, empirical work measuring the relationship between change in factor costs to output supply, known as a supply elasticity, can be employed to cut down on the speculation. A recent study measuring the elasticity of supply in 20 different industries resulting from import protection related cost changes provides some guidelines.<sup>11</sup> The elasticities measured in this study range from -0.3 to -3.0. In other words, a supply elasticity of -2.0 means that a 1% change in factor costs would result in a change in output of 2% in the opposite direction.

Using this study provides a useful benchmark. However, the competitive situation of Utah production, given the large size of the markets, and low differentiation of their products, a -2.0 supply elasticity would be reasonably conservative for reasons mentioned above. With this in mind, we introduce a range of supply elasticities to examine across a range of rail price changes, in the process of measuring employment and earning effects in Utah, thus providing a matrix of possible outcomes.



### *Estimating Direct Effects of a Change in Rail Rates*

Direct effects on industry output is derived by factoring supply elasticities into already derived percentage change in total cost to arrive at direct percentage change in total output. Applying this result to total output, by industry, results in an estimate of total direct change in output, by sector, for each combination of rail rate change and supply elasticity assumptions.

However, this assessment does not represent the total change in output for a specific sector. It represents only the "direct" effects of a change in output as producers respond to changes in rail prices and the impact this may have on their competitiveness in output markets. The Kingsley economic impact model estimates that a 10% increase in rail rates, assuming a -2.0 supply elasticity, will have a negative direct effect on output in Utah of \$217 million dollars annually.

### *Estimating Indirect or Multiplier Effects of a Change in Rail Rates*

The change in output Utah producers enact will certainly affect the business and households which support these industries' lines of production. Many of the supplying business and all the employment are indigenous to Utah. The effects of a direct change in output to these indirectly effected economic agents are described by economists as the "multiplier" effects. Some of the multiplier effects will stretch outside the borders of Utah. When the amount of inter-industry and industry-to-household transaction indigenous to Utah is estimated, multipliers can be developed such that changes in direct output for Utah, can be converted into total effects on output, earnings, and employment by sector, within Utah.

Recent studies by the US Department of Commerce, Regional Economic Analysis Division<sup>12</sup> have provided estimates of such multipliers for Utah and other areas of the

country. These multipliers have been incorporated into the Kingsley economic impact model to convert direct effects on Utah output to total effects on output, earning and employment in the state.



### III. KEY FINDINGS

*The key findings of this study are summarized as follows:*

- The proposed merger of the Union Pacific and the Southern Pacific, Utah's only large railroads, poses threats to the Utah economy to the extent that the merger results in service reductions and/or higher freight rates.
- Utah is very vulnerable to rail rate increases (or reductions in service), due to its industrial base, which is especially reliant on competitive rail service as its businesses are more geographically remote from end market or supply centers.
- We estimate that every 1% increase in Utah's rail freight bill, above that of its global competitors, would result in the elimination of roughly 500 jobs, and \$12 million in annual household earnings in the state.
- The BNSF trackage rights agreement offers no guarantees that the BNSF will vigorously compete for traffic moving into or out of Utah.
- Despite the recent agreement with the Utah Railway, the UP/SP has not solved the loss of competition for many rail shippers dependent on the Central Corridor. Unless a "larger" solution is found for the Central Corridor, Utah shippers could be harmed.
- Unless other provisions are made, the risks are very high that Utah coal producers could be discriminated against by the railroads (UP/SP and BNSF) vis-à-vis Powder River Basin coal producers

The following documentation and analysis supports our key findings.



## Comparative Overview of Utah Economy

A general description of the Utah economy, in terms of a regional and national comparison of the importance of various sectors, is a helpful presentation to introduce at this point to indicate the leverage rail rate changes could have in the state.

Identifying important differences in the makeup of sector employment and personal income, provides a frame of reference for the impact assessments which are the objective of the study. A more exhaustive economic review of Utah, falls outside the scope of this research.<sup>13</sup>

### Utah's Employment

A comparison of Utah's employment base with respect to the shares on jobs in several employment categories to that of Utah's neighboring region (including Nevada, Idaho, Montana, Wyoming, and Colorado)

the US as a whole, help to characterize the state economy, and the types of employment at the Utah economic base.

Proportional employment factors<sup>14</sup> for major business sectors were developed from

the information in the adjacent table for Utah vs. US, and Utah vs. the region surrounding Utah. A proportional employment factor indicates the higher (positive) or lower (negative) likelihood of employment in an employment sector from one state or region to another.

A review of 11 major employment categories shows that Utah's employment base is proportionally higher from that of the US in the construction, and mining sectors, while lower in the non-durable manufacturing, and farm-forestry-fishery sectors. All other sectors such as wholesale trade, retail trade, services and insurance/banking/real estate

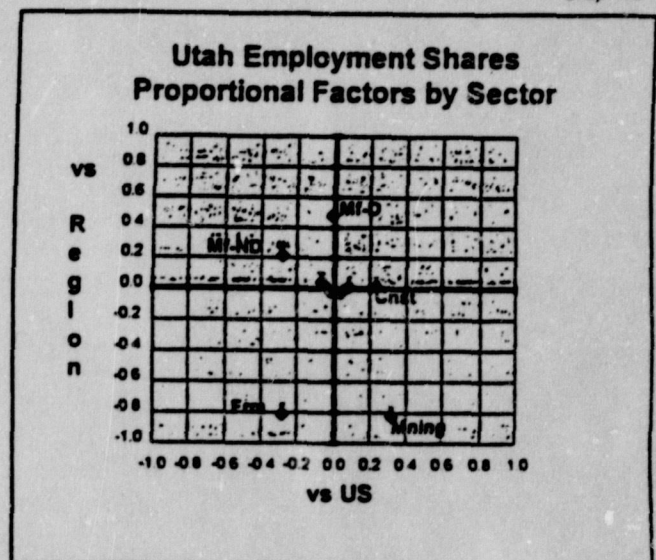
Table #1

% of Total Employment in:			
	Utah	Region	US
Farm/1	2.5%	4.6%	3.3%
Mining	0.8%	1.5%	0.6%
Construction	6.2%	6.1%	5.0%
Manufacturing - Nondurables/2	4.6%	3.8%	6.0%
Manufacturing - Durable	7.4%	5.0%	7.5%
Transportation & Public Utilities	5.0%	5.1%	4.8%
Wholesale Trade	4.4%	4.3%	4.7%
Retail Trade	17.7%	17.8%	16.8%
Finance, Insurance, & Real Estate	7.3%	7.4%	7.4%
Service	28.4%	28.6%	29.3%
Government	16.4%	16.0%	15.0%
Total Employment (millions)	1.10	3.75	144.50
1/ Includes forestry, fishery & g. services 2/ Includes misc. manufacturing			

are proportionally similar (i.e. proportional factors within 10% of each other) for Utah and the nation as a whole. As the graph of proportional factors indicate, when compared to the US as a whole (bottom axis) construction and mining employment are 23% and 32% more likely, respectively, in Utah. The larger construction industry is suggestive of Utah's faster economic growth than the overall US in recent years, while the larger mining employment share is indicative of a traditionally significant economic base industry the state and region. Employment shares are smaller in the farm-forestry-fishery sector in Utah, where employment is 28% less likely than in the entire US. Non-durable manufacturing represents a 29% smaller portion of Utah employment than that for the US.

Graph #3

When comparing Utah to its regional neighbors (left axis), the mining sector, and farm, forestry, and fishery sector are proportionally 82% larger in the region than Utah. Manufacturing is proportionately more important to the Utah economy than it is to its neighbors as durable goods manufacturing employment is 49% more likely in Utah, while non-durable goods employment is 22% more likely than for its neighboring region as a whole. The industries that are clustered together near the center of the graph indicate little variation from either the US or the Region proportions of employment. These industries include finance, insurance and real estate, retail and wholesale trade.



Mf-ND = Manufacturing - Nondurables  
Mf-D = Durable  
Cnst = Construction  
Frm = Farming, Forestry and Fishery  
Mning = Mining

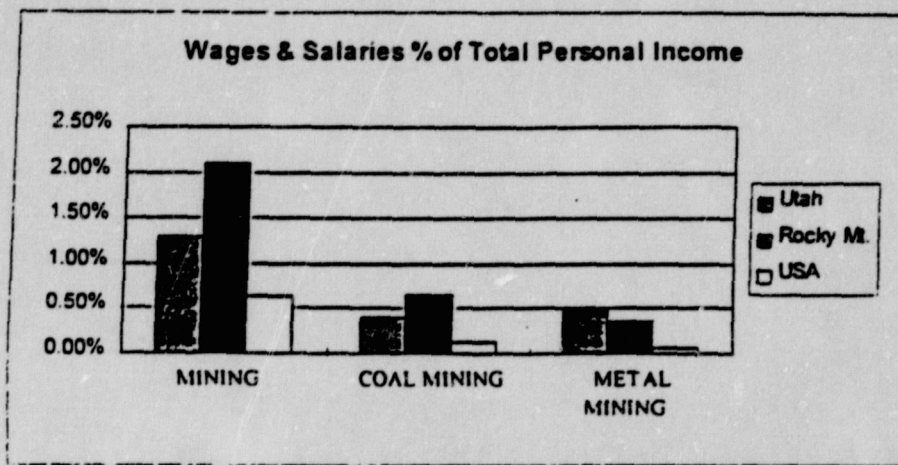
Personal income statistics provide additional perspective regarding the relative importance of mining (particularly coal) and manufacturing (particularly durable goods) in Utah, as compared to the country or surrounding states.



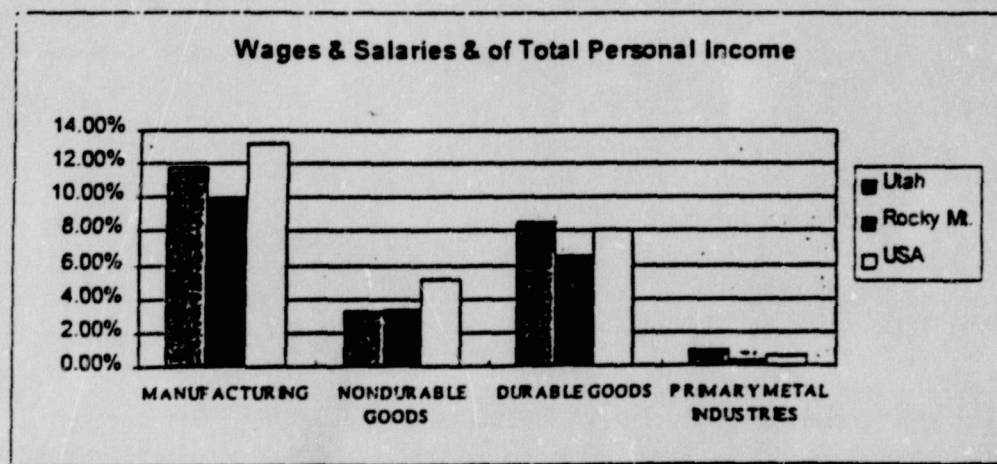
## Utah's Manufacturing and Mining Wages & Salaries

As the following graphs illustrate, Utah's wages and salaries in the mining, coal mining, metals mining, manufacturing and durable manufacturing sectors are a significantly higher percentage of total state personal income than is the case for in the US as a whole. The proportion of wages and salaries in durable manufacturing and mining are greater in Utah than in the region.

Graph #4



Graph #5





## Rail Industry Importance to Utah's Economy

The relative importance of mining, and manufacturing, particularly durable manufacturing to the Utah economy, leads to the conclusion that suppliers and vendors to these and other key industries will also be proportionately more important. Several sectors, which on a national average are most reliant on rail service, are also proportionately larger sectors in Utah than in the US as a whole. The concentration of rail reliant businesses in Utah provides one element of the importance of rail service to the Utah economy. However, total spending

Table #2

Sectors Spending 1% or more of	
Total Output on Rail Services	
Railroads and related services	5.344%
Electric services (utilities)	2.682%
Coal mining	2.561%
Agricultural fertilizers and chemicals	2.081%
Primary iron and steel manufacturing	1.687%
Federal Government enterprises	1.594%
Stone and clay products	1.472%
Paints and allied products	1.310%
Plastics and synthetic materials	1.168%
Glass and glass products	1.151%
Paperboard containers and boxes	1.123%
Industrial and other chemicals	1.076%
Paper and allied products, ex. containers	1.009%

1987 Input/Output Table. Input Use sub table, by sector. USDOC. BEA<sup>11</sup>

on rail service in proportion to total personal income for Utah compared to the US, indicates that Utah is 4 times more reliant on rail than is the US economy (see Graph 2 on page 7). This suggests that use factors from US average input/output accounting<sup>15</sup> understate those for the State of Utah by as much as 4 orders of magnitude, and would need adjustment by that order of magnitude to be used in an assessment of the impact of a increase in rail prices (or logistically equivalent reduction in service) on total Utah production costs. The table above lists those sectors that spend more than 1% of the total output on rail related services. Consequently to the extent Utah is proportionally based on rail reliant sectors it will be significantly affected by changes in rail rates and or rail services.

## Model Results

mentioned in the approach and methodology section, the economic impact model involved 16 individual scenarios, assuming 4 separate values for each of the following two input variables:

- Rail price change values of -5%, 10%, 20%, and 30%, for each of four
- Supply elasticity values of -0.5, -1.0, -1.5, and -2.0.

Model solutions for change in total output, earnings, and employment for 67 business sectors within Utah were computed for each of the sixteen scenarios. Sector detail was tabulated to estimate total Utah effects on total output, employment and earnings for each of the sixteen scenarios. The summary tables below indicate the results for total Utah employment and earnings effects for each combination of rail price change and supply elasticity processed through the model.

Table #3

### EMPLOYMENT EFFECTS

	Rail Rate Change			
Elasticity	-5.0%	10.0%	20.0%	30.0%
-0.5	616	-1,229	-2,457	-3,686
-1.0	1,229	-2,457	-4,914	-7,372
-1.5	1,843	-3,686	-7,372	-11,057
-2.0	2,457	-4,914	-9,829	-14,743

Table #4

### EARNINGS EFFECTS

	Rail Rate Change			
Elasticity	-5.0%	10.0%	20.0%	30.0%
-0.5	\$14,867	(\$29,675)	(\$59,350)	(\$89,025)
-1.0	\$29,675	(\$59,350)	(\$118,700)	(\$178,050)
-1.5	\$44,513	(\$89,025)	(\$178,050)	(\$267,075)
-2.0	\$59,350	(\$118,700)	(\$237,400)	(\$356,100)

As the above tables indicate, a 10% increase in rail rates would lead to a reduction in household earnings of \$119 million per year, in conjunction with a loss of over 4,900 jobs (predicated on the -2.0 supply elasticity scenario). On the other hand, a 5% decrease in rail rates with a -2.0 elasticity yields an increase in household income of



\$59,350 and an increase of approximately 2,500 jobs. We estimate, assuming a -2.0 elasticity factor, that every 1% increase in Utah's rail freight bill, above that of its global competitors, would result in the elimination of roughly 500 jobs, and \$12 million in annual household earnings in the state. As mentioned in the approach and methodology comments however, while a range of supply elasticities and rail rate changes were examined so the reader can understand the range of outcomes over these two important and difficult to predict variables, a supply elasticity assumption of -2.0 in this application is conservative for a variety of reasons.

### **BNSF Trackage Agreement**

As was mentioned in the introductory remarks, and competitive assessment of the UP/SP proposal, UP/SP claims to have addressed the competitive effects of this merger through an exclusive agreement with the BNSF, which provides BNSF the option to operate train, under UP/SP dispatch and control, over the central corridor from Denver, through Utah, and into Stockton, California. The agreement provides access to BNSF only to the industrial/rail connecting points that by UP/SP's have determined are "2-to-1", and therefore eligible for competitive relief. For these operating rights BNSF must pay a trackage rights fee of \$.0031 for every gross ton mile. This works out to roughly \$47 dollars per mile for a loaded coal train. The agreement also stipulates which specific industrial facilities BNSF will be able to access.

Three concerns come to mind as to whether this agreement put forth by the UP/SP and BNSF resolves the competitive effects as claimed.

1. Is the trackage fee BNSF would pay to UP/SP so high as to make Utah locations an unattractive location for BNSF to operate?
2. Is the amount of access points available to BNSF so small that trainload lots of business, need to attract effective competitive service from the BNSF, are not likely?
3. Does the BNSF's option not to serve the area pose any risk to Utah?



## Trackage Fees

We can gain insight as to whether the trackage fees offer BNSF a economically viable market opportunity by reviewing a cost assessment of typical SP movement, and substituting the trackage fees for those cost the fees are purported to compensate the UP/SP for under their agreement with the BNSF. The following table details the cost segmentation for 7 separate legs of a backhaul shipment. A backhaul shipment is a very efficient rail shipment in which two loaded moves with obverse destination and origin characteristics are paired in a single cycle operation. This approach can provide great efficiencies in reduced empty repositioning costs and equipment utilization, which when passed on to the shipper, can improve the producers ability to compete in end markets significantly. The Utah/SP partnership is clustered with such backhaul moves.

Table #3

	Total Move	LEG OF MOVE						
		1	2	3	4	5	6	7
Start	Acco, UT	Acco, Ut	Denver	Chicago	Mintac, Mn	Chicago	Denver	Geneva, Ut
End	Acco, UT	Denver	Chicago	Mintac, Mn	Chicago	Denver	Geneva, Ut	Acco, Ut
Commodity	Coal/Ore	Coal	Coal	Empty	Ore	Ore	Ore	Empty
Train Miles	3,400	350	950	400	400	950	300	50
Gross Ton Miles	45,435,000	6,302,500	13,917,500	1,660,000	5,860,000	13,917,500	4,545,000	232,500
Loaded Cost SP	\$317,434	\$36,346	\$96,473		\$12,135	\$100,796	\$41,683	
Total Var Cost BNSF w/fee	\$379,879	\$43,496	\$115,151		\$50,424	\$120,625	\$49,883	

In this specific case a train set is loaded with Utah coal destined for Illinois. After unloading at a utility, it is repositioned empty to taconite (iron ore) mines in Minnesota, where it is loaded with ore for return to a steel mill in Utah. After being emptied at the Utah steel mill the train set moves back to the Utah coal mine to begin another cycle.

Based on Kingsley's estimate of SP's cost of the move, substituting the trackage fee for related costs, increase the cost of the move by over 20%. Assuming SP received a 1.3 revenue to variable cost ratio on each loaded leg of the move, BNSF would receive a 1.1 revenue-to-variable cost ratio on the same move. This reduction in carrier profitability results from the fact that the \$.0031 per gross to mile fee BNSF must pay when substituted for Kingsley estimated costs in the category of track maintenance and train control, results in a 50% higher cost than would be the case without the fee. As it is certain BNSF has earnings potential for its assets in other markets exceeding a 1.1 revenue-to-variable cost ratio, unless the Utah coal producer and steel mill absorbs the cost to equalize the carrier profitability, Utah will lose a shipping service so important to its competitive position.

#### *Central Corridor Access*

Recently UP/SP have gained additional agreements with Utah Railway, a small regional rail carrier, and reportedly, the Illinois Central a larger regional running along a system from Chicago to New Orleans. Despite these attempts we have estimated the amount of traffic which could be accessed by the carriers and the BNSF amounts to less than 10% of the total traffic along the central corridor, and less than 30% of the traffic UP/SP counts as "2-to-1".<sup>16</sup> Even if BNSF were to achieve a 50% market share of all traffic it would have single line access under this agreement it would amount to less tonnage than that required for one trainload per day along the central corridor.

Assuming these estimates, we are expected to believe BNSF would voluntarily compete for modest portions of a fairly limited market, under a cost regime that is not competitive with that of its competitor. Other factors relating to the special



relationship between Utah based business, and the SP offer additional insight into the likelihood that BNSF will offer the same relationship.

### **Merger Affects to Utah Coal Producers**

A prime example of the special and mutually beneficial relationship of Utah and the SP is illustrated by reviewing coal traffic in the region. The coal mining territory known as the "Central Rockies" encompassing central and eastern Utah and west central Colorado, is of particular concern in the analysis of a UP/SP merger. This, Utah's only coal basin, contributes 0.4% of total Utah personal income and supports over 2,200 Utah households. This sector has a unique partnership relationship with the now independent Southern Pacific, and there is considerable evidence to suggest that this relationship is at risk from the elimination of an independent SP that comes with its merger with the UP.

A recent analysis of the western bituminous coal industry, published by Resource Data International, makes clear that the Utah/SP coal partnership has been aggressive and successful in penetrating markets over the last several years:

"In recent years the SP's aggressive marketing strategy has not only increased markets for Western Bituminous coal, but has displaced coal from markets formerly supplied by UP-served mines. It is apparent that UP has not aggressively pursued these markets, opting instead to focus on its [western Wyoming sources], and as a consequence its market share has dwindled from 93% to 18% of changing utility markets for Western Bituminous coal while the SP's market share has increased [along with its Utah coal producer partners] from 7% to 64%."17

Will the UP/SP, or the BNSF, both of which access the Powder River Basin (PRB) coal fields of Wyoming, offer the same sort of partnership to Utah coal miners that the independent SP provided? Recent behavior of both organizations suggests it is doubtful that Utah producers can expect the sort of aggressive partnership from UP/SP or BNSF that independent SP has demonstrated in the last few years. The answer to the question posed here quite simply determines the future of coal mining in the Utah range.



## IV. CONCLUSIONS

The results of this economic impact study are quite clear. Even conservative assumptions about the likely effect of the UP/SP merger, as proposed, on rail rates in Utah indicate significant risk for devastating economic impacts to the state's economy, assuming reasonable supply side cost elasticities. While UP/SP have attempted to design agreements to address competitive effects of their merger, it is highly likely these agreements will not succeed as replacements to the effective competition in existence today in this region.

One might ask, what would motivate the UP/SP to increase rates or reduce service in Utah to the extent it hurt the state's economy? Wouldn't the railroad suffer from the potential reduction in economic activity in Utah? We can best answer these questions by examining how this merger might effect UP/SP.

A combination of the UP/SP merges what are now, two sets of priorities. Currently, the SP views Utah in its "own" priority list, which would probably have quite a different ranking on a post merger UP/SP list. This might lead to a change in the operational and commercial approach a UP/SP would take compared to an independent UP or SP.

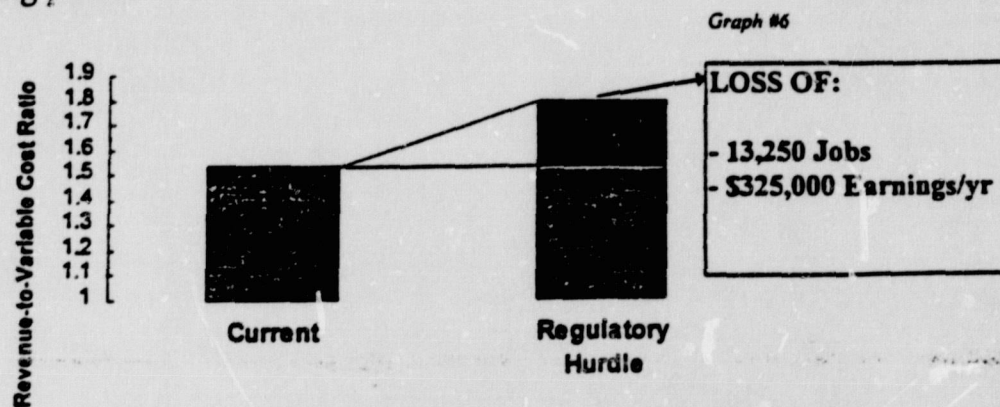
Similarly, replacing BNSF for the merged SP might result in a "priority" ranking for Utah that results in different levels of interest in competing for Utah's freight. To the extent a change in priority results in higher rates or lower service, we now have an insight into the likely ramifications for Utah's economy.

Couldn't federal regulators, charged with the responsibility to protect shippers from "unreasonable" levels of rail rates, prevent hefty increases? Under current law, this

isn't likely. Recent analysis of the revenue-to-cost ratio, an important trigger for federal regulatory intervention, for traffic moving to and from Utah, suggests a ratio far below the hurdle rate for regulatory intervention. We estimate that at current revenue-to-cost ratio levels for Utah freight, it would take a 27% rate increase before significant regulatory response occurred.<sup>18</sup> Applying this assumption through the economic impact model, assuming a -2.0 supply elasticity, results in an estimated subsequent loss of over 13,000 Utah jobs and over \$320 million in Utah household earnings. The fact that the current ratio is so far below the regulatory hurdle is in itself illustrative of the effectiveness of UP and SP competition in the region today. Its elimination could certainly cause a "rubber-band" effect on rail prices.

In the final analysis, Utah and the entire central corridor region must be vigilant that at the end of the UP/SP merger process, rail carrier competition, so critical to its economic health, is secured.

To this end, the Western Shippers Coalition have, respectfully, submitted 5 important alterations to the UP/SP merger proposal which, if all were incorporated, would solve the competitive risks this merger and its proffered side agreements now pose. Should the UP/SP agree that these alterations, submitted below, be included as part of their merger, the Western shippers coalition are confident that rail competition close to the level they now experience could be secured, and therefore could responsibly support the UP/SP merger, welcoming the many other benefits we agree it represents to the US shipping public.<sup>19</sup>





## NOTES

The UP/SP presents its justification for their proposed merger and the arguments for competitive adequacy of their agreement with BNSF in their filing to the Interstate Commerce Commission (now US Department of Transportation, Surface Transportation Board) Finance Docket 36270).

<sup>2</sup> Same as Note 1

<sup>3</sup> The 5% figure comes from \$900 million as a percent of total Class I rail revenue for 1994, taken from 1994 Analysis of Class I Railroads, 1994, published by the Association of American Railroads.

<sup>4</sup> The Coalition for Competitive Rail Transportation (CCRT) is a group of over 100 shippers which have sanctioned research in the estimation of the amount "2 for 1" traffic resulting the UP/SP merger. Their analysis, quoted herein, has been widely distributed to those interested in the competitive and economic effects of the UP/SP merger.

<sup>5</sup> The US is made up of 183 business economic areas, or BEA's. A wide range of transportation related data is available on a BEA basis. Economists find these geographical definitions useful as they tend to encompass areas in which labor, real estate, and other markets have a clear local flavor.

<sup>6</sup> Rail freight for Utah estimated from the 1994 ICC 1% Rail Waybill Sample; US freight bill based on total rail operating revenue for 1994 from US Department of Transportation; Personal income from USDOC/Economics & Statistics Administration/Bureau of Economic Analysis, Personal Income by Source and Earnings by Industry

<sup>7</sup> Same as Note 1

Same as Note 6

<sup>8</sup> A detailed description of the version of Kingsley economic impact model used in this is presented in a Technical Appendix which is available on request.

<sup>10</sup> 1987 Benchmark Input/Output Table, released by US Department of Commerce in Survey of Current Business, April, 1994.

<sup>11</sup> Hufbauer, Gary Clyde and Kimberly Ann Elliot. Measuring the Costs of Protection in the United States. Institute for International Economics, Washington, D.C. January, 1994.

The study cited above developed supply elasticity factors, or the percentage of change in output which results, by industry sector, from a 1% change in factor costs in the sector. Below is a synopsis of the elasticity estimates findings. This list was used as a range of supply elasticities (E) that could be helpful in the development of a set of supply elasticity scenarios incorporated in this study of the effects of rail price increases on Utah output.

Other useful work drawn on for the supply elasticity portion of our analysis is listed below.

Sazanami, Yoko, Shujiro Urata and Hiroki Kawai. Measuring the Costs of Protection in Japan. Institute for International Economics, Washington, D.C. January, 1995

Bernard, Andrew and J. Bradford Jensen. Exporters Jobs and Wages in U.S. Manufacturing: 1976-1987. Brookings Papers on Economic Activity, The Brookings Institution, Washington, D.C. 1995.



US may nationalize SV - will force us to maintain a high level  
low trust, nation E will remain low, ergo no increase in  
notes

• Public benefits so great -  
 - national ~~the~~ system  
 Y3 SP bus - intended; 1/2 of that intended

SP = fragile - can't stand

Memphis - Calif traffic loss (VPR, etc.)

AT&T: EN

VP - ~~from~~ in consideration

Chic - LA SP essentially <sup>intentional</sup> intentional system 2014 - KC - El Paso  
 2014 - El Paso - W. Golden

SP doesn't have above resources to maintain infrastructure

strategic goals, bus rule -

From KP - K.C. - Den 13,900 ft ridge <sup>ridge</sup> ~~ridge~~  
 will be many coal nodes

(VP needs ~~6000~~ <sup>5000</sup> miles 3rd rail in  
 detroit)

Denver - Bond - 7 train (each)

quic 16 (4 - B&O - 1st)

C.T. (bridge) 18

quic 12 1 manifest <sup>new - SLC</sup> ~~BB~~ ;

bridge - bus 21

14

Provo - SLC 22

quic 15

Benefits of merger

DP&W line in good shape - even can Japan could invest and to future.



23/11

45 yrs. Reaction in the lungs.

- reduced torque, 100% =

[illegible]

②  $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$  and  $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$

(3) less op. cost crew, fuel, loc'n -

من مکتوباته لسانی ۵ و سدر ۳۰ من مکتوباته

28 trains per day of 50-55 cars each.  
المركبات 28 في اليوم

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70	NS	SP	40	45	27	
70	NS	SP	40	45	27	
42 90	UP	SP	40	45	27	
24 92	UP	CP	40	45	27	
24 86	UP	CP	40	45	27	
85	BN	SP	40	45	27	
95	UP/SP	BN/UP	40	45	27	
75	BN/UP	UP	40	45	27	

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## **WESTERN SHIPPERS' COALITION**

136 SOUTH MAIN STREET, SUITE 825 • SALT LAKE CITY, UTAH 84101-1672  
(801) 364-1874 • FAX: (801) 364-2640

ALEXANDER H. JORDAN  
TRUCKER

November 30, 1995

Mr. John H. Rabenold  
Vice President Strategic Planning  
Union Pacific Railroad  
1416 Dodge Street  
Omaha, Nebraska 68179

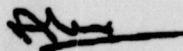
Dear John:

We are grateful for the time you gave us last Monday in Salt Lake City. We hope the exchange of information and points of view will contribute towards bringing your UP/SP merger petition closer to a mutually beneficial consummation. We recognize your concern over the continued viability of the UP/SP in light of the Burlington Northern Santa Fe (BNSF) merger.

I thought it might be useful to convey more succinctly the critical questions the Western Shippers' Coalition has regarding the UP/SP merger and the agreement you have made with the BNSF as the proposed solution to acknowledged negative competitive effects this merger would have without conditions. Most of the two critical questions we have identified, included on the attached list, were at least touched upon in our discussions in Salt Lake City. We look forward to meeting again with you and your team, as we agreed, to discuss new possibilities you will hopefully discover. Perhaps this meeting could take place Thursday or Friday of next week? In the interim we continue to investigate other possible solutions to what we see as competitive concerns with the UP/SP merger.

Again our thanks are extended to your team for your thoughtful consideration of our perspectives. It is my hope that the items forwarded herein will help in your deliberation to develop alternative solutions more responsive to our concerns.

Kindest regards,



Alexander H. Jordan

cc: Mr. Drew Lewis, Chairman, Union Pacific Corporation  
Mr. Philip F. Anschutz, Chairman, Southern Pacific Lines  
Utah, Colorado, Nevada, Congressional Delegations  
Utah Governor Mike Leavitt  
Colorado Governor Bob Miller  
Colorado Governor Roy Romer



# WESTERN SHIPPERS' COALITION

136 SOUTH MAIN STREET, SUITE 825 • SALT LAKE CITY, UTAH 84101-1672  
(801) 364-1874 • FAX: (801) 364-2640

ALEXANDER H. JORDAN  
VICE

November 30, 1995

Mr. Robert Starnel  
Vice Chairman  
Southern Pacific Corporation  
One Market Plaza  
San Francisco, California 94105

Dear Bob:

We are grateful for the time you gave us last Monday in Salt Lake City. We hope the exchange of information and points of view will contribute towards bringing your UP/SP merger petition closer to a mutually beneficial consummation. We recognize your concern over the continued viability of the UP/SP in light of the Burlington Northern Santa Fe (BNSF) merger.

I thought it might be useful to convey more succinctly the critical questions the Western Shippers' Coalition has regarding the UP/SP merger and the agreement you have made with the BNSF as the proposed solution to acknowledged negative competitive effects this merger would have without conditions. Most of the ten critical questions we have identified, included on the attached list, were at least touched upon in our discussions in Salt Lake City. We look forward to meeting again with you and your team, as we agreed, to discuss new possibilities you will hopefully discover. Perhaps this meeting could take place Thursday or Friday of next week? In the interim we continue to investigate other possible solutions to what we see as competitive concerns with the UP/SP merger.

Again our thanks are extended to your team for your thoughtful consideration of our perspectives. It is my hope that the items forwarded herein will help in your deliberation to develop alternative solutions more responsive to our concerns.

Kinder regards,

*AHJ*  
AHJ

Alexander H. Jordan

cc: Mr. Drew Lewis, Chairman, Union Pacific Corporation  
Mr. Phillip F. Anschutz, Chairman, Southern Pacific Lines  
Utah, Colorado, Nevada, Congressional Delegations  
Utah Governor Mike Leavitt  
N Governor Bob Miller  
Colorado Governor Roy Romo



**Western Shippers Coalition  
Critical Questions Regarding the  
UP/SP Merger and Affiliated BNSF Agreement  
Salt Lake City - November 30, 1995**

1. Recognizing that UP/SP has attempted to solve the competitive problem for central corridor (Denver to/from Oakland) shippers going from 2 to 1 carrier, should not similar solution be made available to shippers who technically are not "2 to 1" but use multi-site operations served by either UP or SP, as commercial leverage as though they were jointly served. (i.e. shifting activity from one site to another as to insure carrier competition)

2. Will UP/SP allow open access to BNSF for shippers in our region?

What will reciprocal switch charges be after the merger, and what will be the geographical bounds of the switch district? Aren't these elements necessary for one to expect BNSF to compete to the same effect as SP does today?

3. UP/SP has argued that the rate to be charged to BNSF reflects only a fair return on UP/SP's long term costs. Wouldn't the cost of handling the predominantly minerals and bulk traffic of UT, CO, NV region be quite different than the costs of say, Texas Gulf petrochemicals? Wouldn't a differential in the trackage rate based on the operating cost differences in major lanes enhance the likelihood of the otherwise doubtful BNSF participation?

4. UP/SP makes the argument that its operating plan, which includes significant right of way investments on key corridors of the post merger system, is ample proof of its commitment to the Utah/Colorado/Nevada freight market. Is this a legally binding commitment? If not, what other proof is available to demonstrate the UP/SP commitment?
5. Will UP/SP negotiate economically viable long term contracts with WSC shippers prior to, but contingent on, the merger? Will UP/SP allow BNSF to bid in the same fashion?
6. Many Utah shippers are benefiting from SP backhaul programs. Given that this results from a niche relationship not likely to be replicated by the BNSF, how will shippers be assured the continuation of these very important offerings?
7. What are the minimum volume requirements of the BNSF regarding the trackage rights agreement affiliated with the UP/SP merger? UP/SP has asserted BNSF revenue penetration of \$450 million. Will BNSF trackage fees payment be structured so that a portion of the fee is paid in a "lump sum" based on the minimum volume requirements?
8. Does the BNSF have an operating plan for the central corridor? If so, will you/they share it with us? If not, when will it be drafted and available for shipper review? Prior or after UP/SP merger approval?



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9. Does the trackage rights agreement with BNSF allow for service failure penalties, or other service performance incentives? If so, please share them with us. If not, why weren't they included?

10. UP/SP has estimated that BNSF will attract \$450 million of a \$900 million, jointly served (UP/SP), central corridor market. Could you provide additional chronological, geographical, and commodity detail of this forecast? How does this assessment compare to the entire rail served market effected by this merger, for both jointly as well as exclusively served shippers?

TKG/gjk/uma.wec/11-28-95



**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**FINANCE DOCKET NO. 32760**

**UNION PACIFIC CORPORATION, ET AL.**

**-- CONTROL AND MERGER --**

**SOUTHERN PACIFIC RAIL CORPORATION, ET AL.**

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**VERIFIED STATEMENT**

**OF**

**GERALD W. FAUTH III**

**Dated: March 29, 1996**

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**SECTION I**  
**INTRODUCTION**

My name is Gerald W. Fauth III. I am a transportation consultant specializing in railroad economic and cost issues. I am Senior Vice President of the firm of G. W. Fauth & Associates, Inc. (GWF), an economic consulting firm with offices at 116 South Royal Street, Alexandria, Virginia 22314. A brief description of my background and qualifications is attached hereto as Appendix GWF-1.

On November 30, 1995, Union Pacific Corporation (UP) and Southern Pacific Rail Corporation (SP) (collectively UP/SP) submitted their Railroad Merger Application (RMA) in Surface Transportation Board (STB) Finance Docket No. 32760, Union Pacific Corporation, et al. -- Control and Merger -- Southern Pacific Rail Corporation, et al. I have been asked by the Western Shippers' Coalition (WSC) to prepare and submit these comments on various issues involved in this proceeding.

WSC and its members are concerned about potential impact that this consolidation will have on railroad traffic originating and/or terminating in Colorado (CO), Nevada (NV) and Utah (UT) (collectively CO/NV/UT). This railroad traffic generally moves over railroad lines in the Central Corridor, which is essentially the UP and SP east-west parallel railroad lines between Oakland, California and Denver, Colorado and connecting lines.

I was asked to prepare various analyses of the CO/NV/UT railroad transportation market. These analyses were primarily developed from data extracted and developed from STB's Costed Waybill Sample (CWS). The development and results of these analyses will be described in Section II, CO/NV/UT Market. These analyses indicate that approximately 80 million tons of freight originate or terminate in CO, NV and UT which generate nearly \$2 billion in annual freight charges.

Coal traffic, primarily from CO and UT, with approximately 50 million tons and over \$504 million in freight charges, represents the largest single commodity group of railroad traffic. There are generally no economic viable transportation alternatives to rail coal transportation. Moreover, there are numerous economies associated with handling this bulk commodity, e.g., unit trains, reduced switching costs and large volumes. Therefore, coal is generally a profitable commodity for the railroads. The Verified Statement of Gerald E. Vaninetti describes the characteristics of this western coal market in more detail.

UP and SP have many parallel lines and cover approximately equal service areas in CO/NV/UT. Therefore, the railroads must compete for this profitable traffic which has placed downward competitive pressure on the rate levels. The current competitive transportation environment is demonstrated by the existing revenue to-variable cost (R/VC) associated with the CO/NV/UT traffic.

For example, CO and UT coal has an average R/VC of 177 percent and the average for all traffic is only 144 percent. These ratios would be considered reasonable and competitive by industry standards. Moreover, there is a substantial amount of CO/NV/UT traffic which moves at rates below variable cost, i.e., R/VC ratios below 100 percent. For example, a study developed by the Interstate Commerce Commission (ICC) indicates that approximately 16 percent of UT traffic moves at R/VC ratios below 100 percent.

Approximately 31 percent of the freight tons originated and/or terminated from points identified by UP/SP as "2-to-1" points, i.e., those points identified by the agreement which are currently served by UP and SP and no other railroad. This includes traffic originated by Utah Railway Company (UTAH) since it currently connects with both UP and SP.



UP and SP provide sole service to many of the remaining points, i.e., UP/SP 1-to-1 points. However, the current general ability that coal companies have to truck from the mine to either a UP, SP or UTAH transloading facility has also put downward competitive pressure on these rate levels.

For example, UP's Sharp transloading facility near Levan, UT would compete as a coal origin with SP's Savage Coal Terminal near Price, UT, however, Sharp, UT is not considered a 2-to-1 point by UP/SP. In fact, there is a significant amount of UP/SP traffic to and from non UP/SP 2-to-1 points, i.e., over 40 million tons which represents over 50 percent of the total CO/NV/UT tons.

The ICC has noted the existing intramodal competition between UP and SP in the Central Corridor in numerous decisions and, most recently, in its decision in Finance Docket No. 32549, Burlington Northern, Inc., et. al. -- Control and Merger -- Santa Fe Pacific Corporation, et. al., served August 23, 1995:

. . . Moreover, despite the reduction in the number of carriers in the region, intramodal rail source competition will remain largely undisturbed, and coal quality and characteristics will continue to be a driving force in the demand for certain types of coals. As explained below, we find that the effects on the competitive environment as the number of class I coal hauling railroads in the West is reduced from 4 to 3 will be extremely limited.

After the merger, the same rail carriers will continue to compete for transportation from various coal fields in the same relative positions. UP and BN will continue to compete for coal movements from the PRB. The only Colorado mine that BN now serves is the Golden Eagle/New Elk Mine, which is also served by SP and Santa Fe. Post-merger, BN/Santa Fe will continue to have access to that mine in competition with SP. Other Colorado origins that are now served by UP, SP, and/or Santa Fe will not be affected by the merger at all. SP and UP will likewise continue to serve Utah origins. . . . (p.69).



UP is currently competing with BNSF in the Powder River Basin (PRB) coal market and with SP in UT/CO coal market. Since SP has no access to PRB coal, it must aggressively compete in the UT/CO coal market. As indicated by Witness Vaninetti, as a result of this competition, SP's market share substantially increased from 1989 to 1995. This competition must place downward competitive pressure on UP's coal rates. This pricing constraint will be removed if the merger is approved.

The CO/NV/UT market is a competitive and expanding market. This is recognized by UP/SP Witness John T. Gray who indicates that SP export coal business has grown recently:

. . . In this regard, the export coal business has grown recently and holds the promise of considerable future growth. (RMA, Volume 1, page 205)

This growth in the export market is also recognized in the March 28, 1996 front-page article in the *Wall Street Journal* which states:

Statistically, Utah's exports are on a sharp upward trajectory, reaching \$2.5 billion last year. . . .

If the UP/SP merger is approved, UP/SP will dominate this service area and growing railroad market and the existing intramodal competition will disappear. UP/SP would be the only Class I railroad carrier in NV and UT. <sup>1/</sup> UP/SP would also be the dominant Class I carrier in CO, although the recently merged Burlington Northern Railroad Company and Santa Fe Railway Company (BNSF) system also provides railroad service in CO. In fact, UP/SP will be the origin and/or destination carrier for over 75 percent of the CO/NV/UT railroad traffic.

1/ BNSF handles a limited amount of intermodal traffic from a hub in Salt Lake City, UT.

UP/SP recognized that there would be a loss of railroad competition in certain areas. Therefore, it has reached a settlement agreement with BNSF which would provide BNSF access, primarily via trackage rights, to certain UP/SP 2-to-1 points. UP/SP reached subsequent and similar settlement agreements with UTAH and Illinois Central Railroad Company (IC). UP/SP's Witness John H. Rebensdorf indicates that the "focus of UP/SP's efforts was to preserve competition for "2-to-1" customers." (RMA Volume 1, page 296)

I was asked to evaluate the economics associated with these agreements. Accordingly, I prepared an analysis of the UP/SP 2-to-1 traffic, i.e., an analysis of those records included in the STB's 1994 CWS from and/or to UP/SP 2-to-1 points referred to in the BNSF and UTAH Settlement Agreements. This evaluation is described in Section III, UP/SP 2-to-1 Traffic.

As indicated herein, there are approximately 24.2 million tons which originate and/or terminate from a UP/SP 2-to-1 point. However, BNSF effectively would have access to only 4.7 million tons which equates to less than 6 percent of the total CO/NV/UT traffic. Moreover, BNSF would not have access to traffic from and/to numerous UP/SP points which have competed for railroad traffic in the past.

Since CO/NV/UT is essentially a UP/SP 2-to-1 area, WSC and its members are obviously concerned about the economics associated with these settlement agreements. Although the railroad traffic to and from CO/NV/UT is significant, whether or not BNSF will be able or willing to compete in this market is dependent on several factors, such as: the number of points which BNSF is provided access; the volume of traffic from these points; the current profitability of the traffic; BNSF's route of movement compared to UP/SP's route; the profitability of the trackage rights compensation charges; and other factors.



The profitability associated with the trackage rights charges is obviously an important factor. WSC wants to ensure that the terms and trackage rights compensation included in these agreements will serve as a surrogate for the existing competitive transportation alternatives. Various issues concerning the settlement agreements and the proposed trackage rights compensation levels are addressed in Section IV, Trackage Rights Compensation).

Witness Rebensdorf indicates that these rates are reasonable by comparison with other recently negotiated trackage rights rates and agreements and with UP/SP's maintenance and operations (M&O) cost. I have been asked to review and evaluate his analysis.

It is clear that Witness Rebensdorf's comparisons are erroneous and misleading and that the rates included in the UP/SP - BNSF agreement are unreasonably high from a rate, cost and market comparison. Consequently, BNSF will not be able to effectively compete for CO/UT/NV traffic and, thus, will not serve as a surrogate for the current competitive alternative, i.e., SP.

Although the merger will result in a significant market concentration, UP/SP maintain that the proposed merger will actually "enhance" competition in the West:

The UP/SP merger, together with the settlement agreement with BN/Santa Fe, will greatly intensify rail competition in the West. The merger will yield shorter routes, expanded single-line service, greater capacity, better equipment supply, faster and more reliable service, and lower costs -- all of which will enhance the competitiveness of the merged system. . . . (Volume 1, page 17)



In fact, the proposed UP/SP merger will have significant negative impact on railroad traffic to, from and through the Central Corridor. I estimate that CO/NV/UT freight charges could increase by approximately \$16 million to \$905 million per year. This issue is addressed in Section V, Estimated Impact.

My testimony is summarized and concluded in Section VI, Conclusion. In summary, there is a significant amount of railroad traffic moving from and/or to CO/NV/UT. This traffic currently has a relatively reasonable profit margin which reflects the current competitive railroad transportation environment. UP/SP will dominate this market, especially traffic from and/or to CO/NV/UT service area. The terms of the UP/SP - BNSF/UTAH Settlement Agreements would not create a surrogate, via BNSF/UTAH trackage rights, for this existing competitive situation.

BNSF would have access to a very limited market and the traffic's current R/VC margins are substantially lower than the R/VC ratios generated by the trackage rights charges. Since UP/SP will dominate this market and BNSF will have little or no economic incentive to compete for this traffic, it is reasonable and logical to assume that CO/NV/UT railroad shippers can expect significant rate increases in the future if the UP/SP merger is approved.

**SECTION II**  
**CO / NV / UT MARKET**

Attached hereto as Appendix GWF-2 is an analysis of the CO/NV/UT railroad market. This market analysis was primarily based on data extracted from the 1994 CWS. The following table summarizes my findings:

**Table 1**

**Summary of CO/NV/UT Railroad Market Study**

Item	UP/SP	Total
1. Miles of Road - Owned in CO/NV/UT	4,336	5,795
2. Percent of Total	74.32%	100.00%
3. Freight Stations in CO/NV/UT	817	1,133
4. Percent of Total	72.11%	100.00%
5. Freight Charges From and/or To CO/NV/UT (000)	\$1,469,949	\$1,924,943
6. Percent of Total	76.36%	100.00%
7. Tons From and/or To CO/NV/UT	60,195,723	78,858,755
8. Percent of Total	76.33%	100.00%
9. Carloads From and/or To CO/NV/UT	862,133	1,173,193
10. Percent of Total	73.49%	100.00%

As can be seen from Table 1 and Appendix GWF-2, UP/SP will dominate the CO/NV/UT service area and market. Therefore, UP/SP merger will obviously eliminate current competitive transportation alternatives for CO/NV/UT railroad shippers.



UP/SP will own approximately 75 percent of the total miles of road and serve over 72 percent of the freight stations in these states. As previously stated, there is effectively no other Class I railroad service in NV and UT, in fact, UP/SP will own over 97 percent of the miles of road in UT. Consequently, UP/SP will effectively control the freight charges from this area.

UP/SP will originate and/or terminate approximately \$1.470 billion in freight charges and over 60 million tons, which represent over 76 percent of the CO/NV/UT totals. However, since UP/SP will be the only Class I carrier connecting with UTAH, excluding BNSF via trackage rights, UP/SP will effectively control nearly 80 percent of the total freight charges and tons.

It should be noted that traffic originating in CO, NV, and UT and also terminating in CO, NV and UT (e.g., UT to UT, CO to NV, etc.) is included as originating traffic and excluded from terminating traffic in order to avoid a double-count. This study does not reflect overhead traffic, i.e., traffic originating and terminating from other states, but moves over the Central Corridor. The exclusion of overhead traffic would result in an understatement of the CO/NV/UT market and, undoubtedly, UP/SP's market share.

In addition, I excluded numerous "outlier" records from the data set, i.e.: records with no revenue information; records with no variable cost information; records which generate a R/VC ratio less than 10 percent; and records with a R/VC ratio exceeding 1000 percent. Many of these records involve movements from Canadian origins to CO/NV/UT. These outlier records account for over 1 million tons and approximately \$48 million in railroad freight charges. Therefore, this adjustment would also result in an understatement of the CO/NV/UT market.

In addition to this traffic analysis, the CO/NV/UT records were sorted and summarized by major commodity group. This analysis is attached as **Appendix GWF-3**. As can be seen, coal is the major commodity group. Coal from CO and UT accounts for 62 percent of the total CO/NV/UT originating traffic. Total coal tons originating and/or terminating accounts for 50.55 percent of the total CO/NV/UT tons.

As previously stated, there are generally no economic viable transportation alternatives to rail coal transportation. In addition to coal, there are other CO/NV/UT railroad movements which are generally considered "captive" traffic. For example approximately 4.7 million tons of chemicals or allied products and 3.0 million tons of metallic ore originated and/or terminated in CO/NV/UT. This is also bulk traffic which is generally considered captive to the railroads.

Therefore, it is fair to conclude that the majority of the CO/NV/UT railroad traffic is captive traffic. This fact is also supported by the average haul of 897.6 miles and the annual tons. Trucks generally cannot compete for long distance bulk movements. Based on an average truck load of 20 tons, it would take approximately 4 million annual truckloads or nearly 11,000 trucks per day to handle the CO/NV/UT railroad traffic.

As previously stated, the average R/VC ratio for all CO/NV/UT traffic is 144 percent which would be considered reasonable by industry standards and would reflect the current competitive transportation environment. This fact is also reflected by a comparison of existing UP and SP rates and R/VC levels which is set forth in the following table:



**Table 2**

**Comparison of UP and SP Rate Levels**

Item	UP	SP
1. Miles of Road Owned in CO/NV/UT	2,159	2,177
2. Annual CO/NV/UT O&D Carloads	460,353	401,740
3. Average Rate Per Net Ton	\$30.26	\$19.79
4. Average Haul	886.3	943.0
5. Average R/VC	156.43%	138.07%

UP and SP serve equivalent service areas and traffic, however, UP's average rate is substantially higher than SP's average rate (\$30.26 vs. \$19.79). SP must offer lower rates in order to compete with UP. UP operates a substantially larger railroad system than SP. In terms of total miles of road operated, UP has 22,710 system miles compared to only 13,715 for SP, therefore, UP can offer single line service to many more customers. In addition, UP's routing from CO and UT to Southern California is substantially shorter than the SP route. Therefore, in order to attract the traffic, SP must offer lower rates and accept a lower margin. If the merger is approved, this aggressive competitor, along with the lower rates, will disappear.

Although UP's rate is substantially higher than SP, UP's average R/VC ratio of approximately 156 percent would be considered reasonable by industry standards. Since the majority of CO/NV/UT traffic is captive traffic and, therefore, subject to monopoly pricing, this would demonstrate the competitive constraint or cap placed on UP's existing rates.

**SECTION III**  
**UP/SP 2-TO-1 TRAFFIC**

As previously stated, I was also asked to prepare an analysis of the UP/SP 2-to-1 traffic, i.e., an analysis of those records included in the STB's 1994 CWS from and/or to the UP/SP 2-to-1 points referred to in the UP/SP - BNSF/UTAH Settlement Agreements. This analysis also indicates that UP/SP will dominate CO/NV/UT market and that BNSF would have access to only a limit amount of UP/SP traffic. For example, BNSF would have access to less than 6 percent of the total tons originated and or terminated in CO/NV/UT. This UP/SP 2-to-1 traffic analysis is summarized in **Appendix GWF-4**.

The first step in this process was the identification of the UP/SP 2-to-1 points in CO, NV and UT. Based on the description of the points referred to in Section 1b and Exhibit A of the UP/SP -BNSF Settlement Agreement, I identified the UP/SP 2-to-1 points listed in **Appendix GWF-5**.

Those 1994 CWS records which involved movements from and/or to these UP/SP 2-to-1 points and the other records were then grouped into the following five (5) categories:

- I. UP/SP 2-to-1 Traffic Currently Handled by BNSF (Intermodal via Salt Lake City, UT)
- II. UP/SP 2-to-1 Market Which BNSF Would Have Access to Under the BNSF/UTAH Settlement Agreements
- III. UP/SP 2-to-1 Traffic Which Would Not Be Covered by The Settlement Agreements
- IV. Other UP/SP Traffic Which Would Not Be Covered Under the Settlement Agreements
- V. Traffic Which UP/SP Does Not Serve as the Origin or Destination Carrier



Group I represents traffic which, according to the 1994 CWS, BNSF moved to or from Salt Lake City, UT, which is listed as a UP/SP 2-to-1 point. A review of these records indicates that BNSF handled over carloads of intermodal traffic from Salt Lake City and, in fact, Salt Lake City is listed as a BNSF "HUB" in the Official Open and Prepay Station List. I do not know the details of how BNSF physically handles this intermodal traffic from Salt Lake City, however, it is traffic to and from a UP/SP 2-to-1 point which presumably would not be included under the settlement agreements. Therefore, it was segregated from other UP/SP 2-to-1 traffic.

Group II represents the UP/SP 2-to-1 traffic which BNSF and/or UTAH could serve under the agreements. Traffic was included in this group if it originated from and/or terminated to a UP/SP 2-to-1 point and connected with BNSF or another carrier. As can be seen, this group represents less than 6 percent of the total CO/NV/UT tons. It should also be noted that this group has an average R/VC ratio of only 132 percent. Witness Rebensdorf has indicated that the trackage rights charges generates a R/VC ratio between 171 percent and 199 percent. Therefore, it would be very difficult for BNSF to compete for this limited traffic at the current margins..

Group III represents UP/SP 2-to-1 traffic which is originated from and/or terminated to a UP/SP 1-to-1 point. It is logical to assume that BNSF would not have access to this traffic or could not compete for this traffic. This would involve the cost of an additional interchange and BNSF would be competing with UP/SP's direct service.

Group IV is traffic which is handled by UP/SP, but not considered as 2-to-1 traffic under the agreement. For example, coal from UP's Sharp, UT rail facility would be included in this group. As can be seen, over 50 percent of the tons are included in this group.

Group V, which represents all non-UP/SP traffic is a very limited group at approximately 19 percent of the tons. This also demonstrates that UP/SP will dominate the CO/NV/UT market.



**SECTION I V**  
**TRACKAGE RIGHTS COMPENSATION**

UP/SP Witness Rebensdorf describes the settlement agreement reached between UP/SP and BNSF. He indicates that he was charged with negotiating "an agreement that would preserve rail competition for all customers who, prior to the announcement of the merger on August 4, 1995, were served by both UP and SP and no other railroad ("2-to-1" customers)." After "discussions" and "negotiations" with other railroads, UP/SP decided that BNSF was "the first choice" and, therefore, UP/SP began settlement negotiations with BNSF. The negotiations culminated in the UP/SP - BNSF Settlement Agreement dated September 25, 1995. (RMA Volume 1, pages 292 to 294)

The settlement agreement gave BNSF access, via trackage rights, to certain UP/SP "2-to-1" points which are listed in Appendix GWF-5. The trackage rights compensation levels included in this agreement as set forth in the following table:

**Table 3**

**Trackage Rights Compensation**  
**(mills per ton-mile)**

<u>Traffic</u>	<u>Keddie-Stockton/Richmond</u>	<u>All Other Lines</u>
Intermodal and Carload	3.48	3.10
Bulk (67 cars or more of one commodity in one car type)	3.00	3.00

(RMA Volume 1, pages 304 and 331)

Witness Rebensdorf indicates that his "objective" in negotiating these rate levels:

. . . was to ensure that Union Pacific would be fairly reimbursed for the maintenance and operating expense associated with BN/Santa Fe's trackage rights operations, and would receive a reasonable return on the capital tied up in the lines whose capacity BN/Santa Fe would be partially using. . . . (RMA Volume 1, page 301)

Witness Rebensdorf also indicates that these rates are reasonable by comparison with "other recently negotiated" rates and agreements and with UP/SP's M&O cost.

I have reviewed Witness Rebensdorf's comparison and his underlying workpapers. Based on this review, it is clear that Witness Rebensdorf's comparisons are erroneous and misleading and that the rates included in the UP/SP - BNSF Settlement Agreement are unreasonably high from both a rate comparison and cost stand-point.

**A. Net-Ton-Miles versus Gross-Ton-Miles**

UP/SP's Settlement Agreements with BNSF and UTAH indicate that the rates are expressed in "mills per ton-mile." The Class I Annual Reports (R-1) to STB include the following definition of a ton-mile:

Ton-miles represent the number of tons of revenue and non-revenue freight moved one mile in transportation train.



In other words, a ton-mile is defined as one loaded ton moving one loaded mile. Therefore, by definition, a ton-mile is a net ton-mile which excludes the empty or tare weight of the railroad car or the empty return miles. In fact, the UP/SP - BNSF Settlement Agreement specifically refers to a ton-mile as a net ton-mile in reference to the proportional rate agreement involving the so-called "I-5" corridor. (RMA, Volume 1, page 346)

The fact that a ton-mile normally represents a net ton-mile is also evidenced by the data reported by the Class I carriers. According to the Association of American Railroads' (AAR) 1994 Analysis of Class I Railroads in 1994, the total revenue ton-miles for all U.S. Class I railroads were 1,200,700,907,000. The total loaded car miles were 13,481,277,000, which equates to an average load of 89.80 tons per car.

Although the settlement agreements state that the rates are express in mills per ton-mile, Witness Rebensdorf indicates that they "used gross ton-miles as the basis for assessing the charges because it most accurately reflects the actual use made of the facility, and therefore the resulting expense." (RMA, Volume 1, page 305) (emphasis added).

A gross-ton-mile differs from a ton-mile in that it includes the weight of the lading plus the empty or tare weight. A gross ton-mile is defined in the R-1 instructions as the "tons behind locomotive units (cars and contents, cabooses) moved one mile in transportation trains." For example, if the load per car is 100 tons and the tare weight is 30 tons, the gross tons would equal 130 tons. Witness Rebensdorf's workpapers, however, indicate that these rates would be assessed based on the average gross ton-miles for the loaded and empty movement.

Attached hereto as Appendix GWF-6 is a copy of the workpaper used by Witness Rebensdorf to demonstrate that the trackage rights fee represented 31.1 percent of the total variable cost for a hypothetical movement from Denver, Colorado to Oakland, California. The following table compares Witness Rebensdorf's application of the trackage rights charge to an application based on ton-miles:

**Table 4**  
**Comparison of Witness Rebensdorf's**  
**Trackage Rights Rate Application**  
**To Rates Assessed Based on Ton-Miles**  
**For the Movement From Denver, CO to Oakland, CA**

Item	Rebensdorf's Application	Ton-Mile Application
1. Rate per Ton-Mile	\$0.0031	\$0.0031
2. Load Per Car	67.00	67.00
3. Tare Weight	34.20	n/a
4. Empty Return	1.75	n/a
5. Gross Tons Per Car (L.2 + (L.3 x L.4))	126.85	n/a
6. Line-Haul Miles	1,383	1,383
7. Ratio: Loco, Car, Contents GTM to Car, Contents GTM		n/a
8. Total Gross Ton-Miles Per Car (L.5 x L.6 x L.7)		n/a
9. Total Ton-Miles (L.2 x L.6)	n/a	92,661
10. Total Trackage Rights Cost Per Car (L.1 x L.8 or L.9)	\$596.77	\$287.25
11. Total Trackage Rights Cost Per Ton (L.10 / L.2)	\$8.91	\$4.29
12. Rate Per Net Ton-Mile (L.11 / L.6)	\$0.0064	\$0.0031



As can be seen, Witness Rebensdorf's application results in a rate of 6.4 mills per net ton-mile rather than 3.1 mills per net ton-mile for this movement. I applied Witness Rebensdorf's gross ton-mile application approach to the Central Corridor line segments which BNSF has been granted trackage rights using both the 3.0 and 3.1 mill rates. These applications are attached hereto as Appendix GWF-7.

For the 3.0 bulk rate, I utilized a 100-ton load per car, a 30 tare weight, and a 100 percent or 2.00 empty return ratio. For the 3.1 mill general rate, I used an average load of 67 tons, an average tare weight of 34.2 tons and an empty return ratio of 1.75 which are the same factors used by Witness Rebensdorf. My conclusion is that the per net-ton-mile trackage rights fee charged BNSF would be over 5.0 mills, and often well over 6.0 mills.

**B. Car-Mile Comparison**

Witness Rebensdorf includes a comparison of the trackage rights included in the UP/SP - BNSF trackage rights agreement with rates in other recent trackage rights agreements. He indicates that the rates of \$0.0030 and \$0.0031 per ton mile equate to car mile rates of \$0.24 and \$0.25, respectively, which he maintains are reasonable in comparison with other recent rates. He indicates that he utilized conversion factor "based on a 100-ton load and 100% empty return." (RMA, page 305 and 306) There are several problems associated with this comparison.

First, it should be noted that the STB's car-mile instructions defined a car-mile as "a movement of a unit of car equipment a distance of 1 mile." Therefore, the conversion from ton-miles to car-miles is simple, i.e., the rate per net-ton-mile times the load per car.

For example, the 3.0 mill per *ton-mile* rate for a 100 ton car would equate to a car-mile rate of \$0.30 (\$0.003 per ton mile x 100 tons per car mile), which, in this instance, is higher than the rate of \$0.24 per car mile developed by Witness Rebensdorf.

In lieu of 100 tons per car, Witness Rebensdorf used a lower conversion factor of 80 (\$0.003 per ton-mile x 80 average gross ton-miles per car = \$0.24). This conversion factor was developed using the following equation:  $((100 \text{ tons per car} \times 1 \text{ loaded mile}) + (30 \text{ tare tons per car} \times 2 \text{ loaded and empty miles}) / 2)$ . By utilizing an average of 80 gross-ton-miles per car, Witness Rebensdorf has substantially understated the UP/SP trackage rights charge on a per car-mile basis.

As indicated from Table 4 and Appendix GWF-7, Witness Rebensdorf applied the trackage rights charge based on the total gross ton-miles per car (tons per car + (tare weight x the empty return ratio)). In this comparison, however, Witness Rebensdorf, utilized the average gross-ton-miles per car. This approach resulted in a substantial understatement of issue trackage rights charges for this comparison.

An average load of 100 tons per car and 30 tare tons would equate to 130 gross tons per loaded car-mile and a rate of \$0.39 per car-mile based on the 3.0 mill rate. However, since Witness Rebensdorf's application of these charges is based on total (i.e., loaded and empty) gross ton-miles, Witness Rebensdorf should have utilized a conversion factor of 160  $((100 \text{ tons} \times 1 \text{ miles}) + (30 \text{ tons} \times 2 \text{ miles}))$ , which would equate to rates of \$0.48 and \$0.50 per car-mile, which are substantially higher than the rates listed in Witness Rebensdorf's comparison (see RMA, Table 2, page 306).



Witness Rebensdorf's analysis is also flawed by the comparison of the understated rates included in UP/SP - BNSF Settlement Agreement to rates reflected in agreements which cover very short distances. The average distance reflected in the other agreements, excluding the BNSF - SP agreement which cover 2,108 miles, is only 96 miles. For such short movements, the trackage rights charges would be only a small portion of the total cost. For example, a \$0.25 per car-mile rate for a 100 mile movement would equate to only \$25.00 per car or only \$0.25 per ton.

C. URCS Cost Analysis

As previously stated, Witness Rebensdorf also developed a comparison of the trackage rights rates to UP/SP's M&O costs based on Uniform Railroad Costing System (URCS) costing. Witness Rebensdorf makes the following statement:

The rates can also be viewed in comparison to costs developed using the Uniform Rail Costing System ("URCS"). A weighted average of UP and SP costs was used because 56 percent of the BN/Santa Fe trackage rights mileage will be over SP lines and 44 percent will be over UP lines. On a weighted average basis, the rates will cover between 143% (at the 3.0 mill rate) and 148% (at the 3.1 mill rate)<sup>3</sup> of what URCS defines as the system average variable cost of the so-called "M&O" (maintenance and operations) functions that a trackage rights landlord must perform (e.g., track maintenance/dispatching).

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<sup>3</sup> At the 3.48 mill per ton-mile rate the coverage of variable cost is 166%.

The 143 percent, 148 percent and 166 percent R/VC ratios were subsequently changed to 171 percent, 177 percent and 199 percent, respectively, following Witness Rebensdorf's deposition during the week of January 22, 1996 via an errata filing made by UP/SP.

I have reviewed Witness Rebensdorf's original and errata workpapers and believe that he has overstated the weighted average variable M&O cost and, therefore, still understates the R/VC ratios generated by the issue rates. In order to develop an understanding of Witness Rebensdorf's development and for reference, I have replicated his calculations based on his workpapers. This replication is attached hereto as Appendix GWF-8.

As indicated in this development, Witness Rebensdorf developed a weighted average variable M&O cost of \$0.00175038 or 1.75 mills per gross ton-mile. This 1.75 mill M&O variable cost was based on a 43.52 percent / 56.48 percent weighting of UP's M&O cost of 1.34 mills and SP's higher M&O cost of 2.07 mills, respectively. The weighting was simply based on the trackage rights miles over UP and SP, i.e., 1,726.8 miles and 2,240.9 miles.

The maintenance costs included in his development appear to be higher than UP's and SP's total maintenance cost. The AAR's 1994 Analysis of Class I carriers indicates that UP/CNW's total Way and Structures expenses was \$734,479,000 compared to \$419,126,000 for SP. The total gross ton-miles for these railroads were 569,038,703,000 for UP/CNW and 269,927,354,000 for SP. Therefore, their total (as opposed to variable) Way and Structures cost equate to only 1.29 mills and 1.55 mills per gross ton-mile, respectively. On a combined basis, UP/SP's total Way and Structures cost would equate to only 1.38 mills per gross ton-mile.



In addition to utilizing apparently high maintenance figures, Witness Rebensdorf overstates the weighted average cost by using trackage rights miles over UP and SP, i.e., 1,726.8 miles and 2,240.9 miles, which gave a greater weight to SP's higher M&O cost.

Maintenance decisions are generally made on a system-wide basis. Since UP is substantially larger than SP, UP/SP's combined maintenance cost should be substantially lower than SP's costs. In touting the benefits of the proposed merger, UP/SP indicates that such system costs will be reduced after the merger. For example, UP/SP Witness Richard B. Peterson indicates that maintenance costs will be reduced "from adopting "best practices" on the entire merged system -- the most efficient way that either railroad has developed of performing mechanized track maintenance . . . " (RMA, Volume 2, page 71). UP/SP RMA also indicates that dispatching and other system costs will be reduced by the merger:

. . . Substantial savings will come from eliminating duplicative staff and duplicative accounting, dispatching and customer service systems, and by improving the productivity of activities in these areas. Still further savings will be realized from bulk purchasing and application on the entire combined system of UP's more efficient procurement practices. (RMA, Volume 1, page 33)

UP/SP Witnesses R. Bradley King and Michael D. Ongerth also maintain that UP/SP's M&O costs will be lower after the merger:

... By linking and ultimately combining the UP and SP dispatching systems and adopting the best technologies of both systems, UP/SP will be able to dispatch the entire railroad with 172 fewer dispatchers and related personnel, saving over \$15 million annually. (RMA, Vol.3, page 89)

...

Significant expense reductions are also expected in the reallocation of purchases among ballast and tie suppliers. ... UP/SP will obtain 50 percent of the ballast requirements for SP's existing lines from UP quarries, for an average price \$2.29 per ton less than ballast from SP quarries. (RMA, Vol.3, pages 93 and 94)

...

UP can perform rail grinding, rail testing, rail welding, panel track fabrication and track geometry testing at lower cost than SP. ... In this area, UP/SP again will use UP best practices, saving about \$2.2 million annually, after some initial investment. (RMA, Vol.3, page 94)

...

... Because the gangs will be used more efficiently, UP/SP will be able to perform the same quality of maintenance with two fewer tie gangs and four fewer curve gangs. Purchases of associated equipment will also be avoided. ... (RMA, Vol.3, page 95)

Consequently, if the merger is approved, the maintenance and dispatching costs should be reduced to a level which is close to, if not lower than, the railroad with the "best practices," i.e., UP's M&O level. Therefore, I have restated Witness Rebensdorf's development based on UP's 1994 URCS unit costs. This restatement is attached hereto as Appendix GWF-9. As can be seen, the R/VC ratios generated by the proposed trackage rights charges would range from 230 percent to 267 percent.



Witness Rebensdorf could have weighted the M&O costs by UP's and SP's total gross ton-miles. Based on this approach the weighting factors would be 68.14 percent for UP and 31.86 percent for SP which would result in a variable cost of \$0.00157175 or 1.57 mills per gross ton-mile and R/VC ratios of 191 percent, 197 percent and 222 percent for the 3.0, 3.1 and 3.48 mill rates, respectively.

**D. Movement Economics**

As indicated in Appendix GWF-7, BNSF would have to pay UP/SP an effective rate per ton of \$2.77 per ton for a coal movement involving a movement from Provo, UT to Denver, CO (eastbound) and \$3.90 per ton for a coal movement over UP/SP tracks from Provo, UT to Stockton, CA (westbound). This can represent a substantial amount of the total transportation cost, especially for shorter movements.

For example, according to the 1994 CWS, 512,166 tons moved from Sharp, UT to Valmy, NV, a distance of 467.4 miles. A BNSF movement from Provo, UT to Valmy, UT, a distance of approximately 416.3 miles, would involve a trackage rights charge of \$2.20 per ton. The UP's average variable cost for this movement is only        per ton. In order to compete for this traffic BNSF would have to absorb the trackage rights charge which represents a substantial mark-up of its M&O costs. Therefore, its cost would be substantially higher than UP/SP's cost. The 1994 CWS also includes a record for this movement which indicates that UP/SP's rate is only        -per ton. Therefore, the trackage rights charge would represent of        percent of the rate. Moreover, since CWS data generally reflects tariff rates, a contract rate may be lower than this level.

The 1994 CWS also includes a record for an export coal movement from Sharp, UT to East San Pedro, CA which has a rate of only            per ton. Again, a contract rate would be lower. In order to compete for this traffic, BNSF would have to absorb a charge of \$3.90 per ton and incur higher additional movement costs as a result of the longer haul via Stockton, CA.

**E.    Logistics and Other Factors**

As previously stated, there are many factors which BNSF must consider in order to decide whether or not to compete for the CO/NV/UT traffic. For example, since BNSF currently does not serve this area, it would be presented with a difficult logistic challenge. For example, this would involve labor negotiations, the establishment of crew change points, equipment utilization decisions, and other problems.

These problems could further increase BNSF variable costs which would already be higher than UP/SP as a result of the trackage rights compensation. For example, BNSF may be required to dead-head or limo crew from Denver, CO to Provo, UT which would increase its costs.

**F.    Reasonable Compensation**

As indicated herein, the proposed trackage right charges are unreasonable and would not provide the economic incentive necessary for BNSF to serve as a surrogate for the loss of the existing railroad competition. Absent the divestiture or sale of certain Central Corridor lines, I believe that the establishment of rates of 2.0 mills or less per gross-ton-mile would be a reasonable fee that would encourage, not discourage, carriage by BNSF.



A 2.0 mill rate would generate an R/VC of approximately 153 percent which would represent a reasonable mark-up of the variable cost including the current cost of capital. I have applied the rates of 1.75 mills and 2.00 mills for bulk and general traffic, respectively. This application is shown in Appendix GWF-10. As can be seen, these rates would equate to rates per car mile ranging from \$0.28 to \$0.31 per car mile which would be higher than the rates per car mile listed in Witness Rebensdorf's Table 2. (RMA Volume 1, page 306)

**G. Adjustment of Charges**

The BNSF agreement also calls for annual adjustment of the charges "to reflect seventy percent (70%) of increases or decreases in Rail Cost Adjustment Factor, not adjusted for changes in productivity." (RMA, Volume 1, page 337) The Rail Cost Adjustment Factor (RCAF) is an index which reflects changes in input prices rather than actual output cost changes. STB maintains two RCAF indices: the unadjusted, or RCAF-U, and index adjusted for productivity, or RCAF-A. RCAF-U is an input price index, therefore, changes in output costs and changes resulting from productivity are not reflected in the index. Previous studies that I have developed have indicated that the RCAF-U, even adjusted by 70 percent, will outpace the increase in the RCAF-A. Consequently, the application of a 70 percent RCAF-U index will increase the R/VC ratios generated by the trackage rights charges. I believe that the RCAF-A should be applied.

**SECTION V**  
**ESTIMATED IMPACT**

The proposed UP/SP merger will produce economies such as improved single-line service, however, the major competitor in the region, i.e., SP, will be effectively eliminated. UP/SP will have no incentive to pass through these savings to the shipper. The BNSF will have access to a limited amount of traffic, but the traffic would have to be extremely profitable in order for BNSF to compete for the traffic. Consequently, UP/SP will be able to substantially raise the existing rate levels and profit margins.

In Appendix GWF-11, I have developed a range of estimated annual increase in freight charges from \$15.8 million to \$905 million. This development was based on the following scenarios: UP/SP rates would equalize at a rate level equal to UP's current average R/VC ratio of 156.43 percent; UP/SP would raise rates to a level of 180 percent which is the STB's jurisdictional threshold; UP/SP would raise rates to a level of 230 percent, which is the R/VC generated by the trackage rights charge; and UP/SP would raise rates to a level of 250 percent, which, because of the high R/VC generated by the trackage rights charge, UP/SP could do without fear of losing a significant amount of traffic.



**SECTION V I**  
**CONCLUSION**

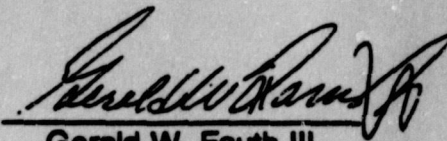
In summary, there is a significant amount of railroad traffic moving to and/or from CO/NV/UT. This traffic currently has a relatively reasonable profit margin which reflects the current competitive railroad transportation environment. UP/SP would dominate the Central Corridor railroad market, especially traffic to or from the CO/NV/UT service area. For example, UP/SP will serve as the origin or destination carrier for over 75 percent of the traffic from this area.

The terms of the UP/SP - BNSF Settlement Agreement would not create a surrogate, via BNSF or UTAH trackage rights, for this existing competitive situation. BNSF would have access to a very limited market and the traffic's current R/VC margins are substantially lower than the R/VC ratios generated by the trackage rights charges. Since UP/SP will dominate this market and BNSF will have little or no economic incentive to compete for this traffic, it is reasonable to assume that CO/NV/UT railroad shippers can expect significant rate increases in the future if the UP/SP merger is approved.

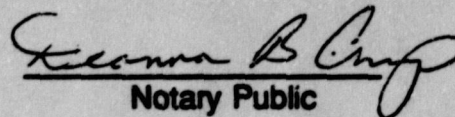
Alexandria, Virginia:

ss

Gerald W. Fauth III, being duly sworn, deposes and says that he has read the foregoing document and attachments thereto and knows the contents thereof, and that all matters and things set forth therein are true.

  
Gerald W. Fauth III

Subscribed and sworn to before me this 28th day of March, 1996.

  
Notary Public

My Commission expires 5-31-99.



**STATEMENT OF QUALIFICATIONS**  
**OF**  
**GERALD W. FAUTH III**

My name is Gerald W. Fauth III. I am a transportation consultant specializing in railroad economic and cost issues. I am Senior Vice President of the firm of G. W. Fauth & Associates, Inc. (GWF), an economic consulting firm with offices at 116 South Royal Street, Alexandria, Virginia 22314.

GWF, and its predecessor company, Williams and Fauth, has been in the transportation consulting business for the past thirty-nine (39) years. My part-time affiliation with GWF began in 1972. I have been employed on a full-time basis by GWF since May, 1978.

GWF has provided assistance to a wide-variety and number of clients, primarily freight shippers, in various inter and intra-modal transportation projects relating to railroads, motor carriers and barge companies. These projects have involved the areas of:

- Transportation Costing;
- Rate Structure Economic Evaluations;
- Contract and Tariff Rate Negotiations;
- Litigation Support;
- Transportation Mergers;
- Railroad Line Acquisitions;
- International Shipping Issues;
- Transportation Legislation;
- Engineering Studies;
- Distribution Studies;
- Traffic Analyses;
- Transportation Property Appraisals;
- Transportation Operations; and
- Other Transportation Problems

During my affiliation with GWF, I have been directly involved with every major project. I have assisted numerous clients in transportation freight rate structure economic evaluations and in direct negotiations with transportation companies. My knowledge and understanding of carrier's variable costs and operations have been a great value to shippers in negotiations with carriers for contract rates. This is particularly important in high-volume bulk-commodity movements such as coal, chemicals, agricultural products and other bulk commodities.

In recent years, U.S. railroads have abandoned or sold a substantial number of low-volume branch lines. I have assisted numerous clients in abandonments and line acquisitions on valuation issues involving the railroad equipment, property and right-of-way lines.

I have personally conducted numerous on-site inspections of railroad switching operations which were used to develop the costs associated with railroad operations. I have conducted numerous time-motion studies of motor carrier loading facilities that were used in developing the handling cost associated with the service. Therefore, I am familiar with transportation operations.

In 1980, the railroads were substantially deregulated by the passage of the Staggers Rail Act of 1980. In 1995, another railroad deregulation effort culminated with the passage of the ICC Termination Act of 1995, which eliminated the ICC and established the STB effective January 1, 1996. I was actively involved in monitoring and tracking these bills. Therefore, I am familiar with the legislative history of the existing laws and residual regulations impacting railroads.

It is often necessary to litigate disputes between parties. Therefore, I have been called upon as expert witness in numerous litigations before the Interstate Commerce Commission (ICC), and its successor, the Surface Transportation Board (STB), and other regulatory agencies.

I have prepared and submitted both written and oral testimony. A list of several of these proceedings follows:



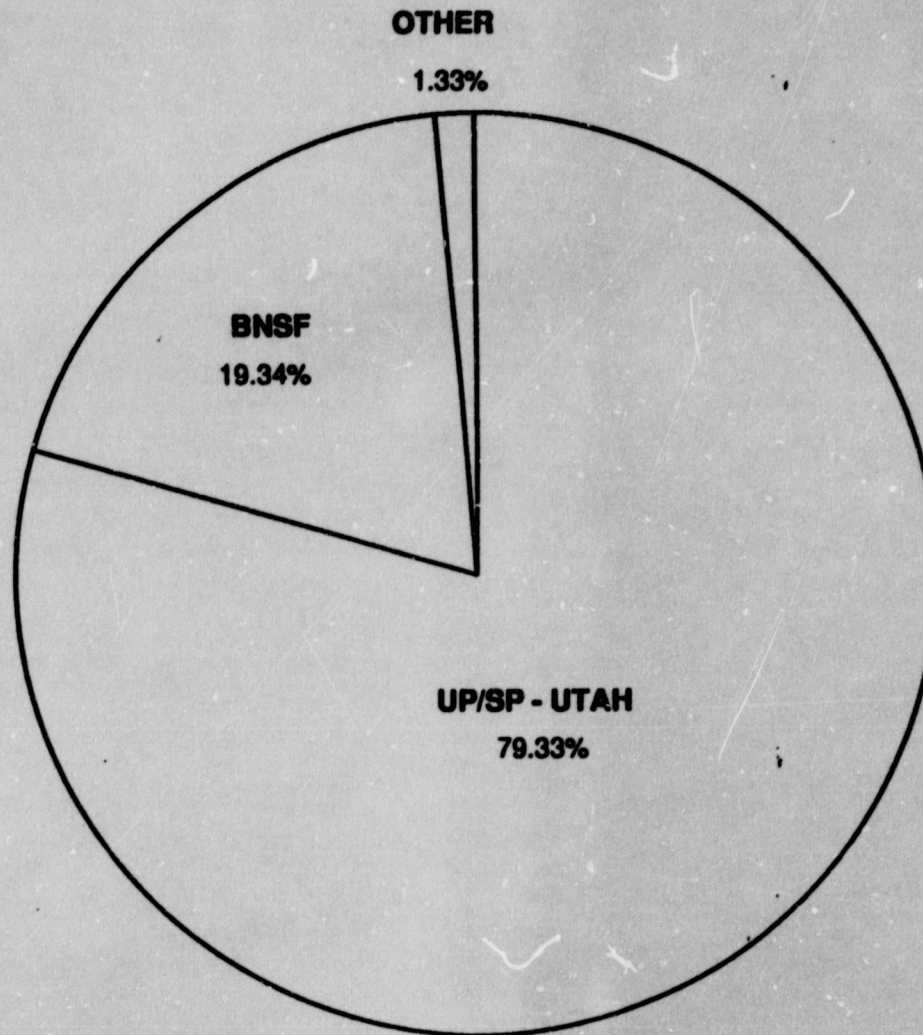
- ICC Ex Parte No. 290 (Sub-No. 2), Railroad Cost Recovery Procedures;
- ICC Ex Parte No. 328, Investigation of Tank Car Allowance System;
- ICC Ex Parte No. 346 (Sub-No.24), Rail General Exemption Authority - Miscellaneous Manufactured Commodities;
- ICC/STB Ex Parte No. 347 (Sub-No. 2), Ex Parte No. 347 (Sub-No. 2), Rate Guidelines - Non-Coal Proceedings;
- ICC Ex Parte No. 431 (Sub-No. 1), Adoption of the Uniform Railroad Costing System as a General Purpose Costing System for all Regulatory Costing Purposes;
- ICC Finance Docket No. 31012, Cheney Railroad Company, Inc., Feeder Line Acquisition - CSX Transportation, Inc. Line Between Greens and Ivalee, Alabama;
- ICC Finance Docket No. 31608, PSI Energy, Inc. - Feeder Line Development - Norfolk Southern Corporation Line Between Cynthiana and Carol, Indiana;
- ICC Docket No. 37931S, Metropolitan Edison Company v. Consolidated Rail Corporation;
- ICC Docket No. 38279S, The Detroit Edison Company v. Consolidated Rail Corporation, et. al.; and
- ICC Docket No. 40073, South-West Railroad Car Parts Company v. Missouri Pacific Railroad Company.

Many of these projects and litigations have involved the development of analyses based on the application of unit costs developed using the ICC's Uniform Railroad Costing System (URCS), and its predecessor, Rail Form A (RFA). I have also developed numerous traffic and market analyses based on the ICC's Costed Waybill Sample (CWS).

I am a 1978 graduate of Hampden-Sydney College of Virginia with a Bachelor of Arts degree. My major areas of concentration were in the departments of history and government. My senior thesis dealt with the History of Railroad Regulation. I am a 1974 graduate of St. Stephen's School in Alexandria, Virginia.

I am a member of the Association for Transportation Law, Logistics and Policy and the Transportation Research Forum. I am also a candidate member of the American Society of Appraisers.

**CO/NV/UTAH TOTAL TONS  
ORIGINATED AND/OR TERMINATED**





# **COLORADO, NEVADA AND UTAH RAILROAD MARKET**

Ln. No.	Item	Source	Colorado		Nevada		Utah		Total	
			Amount	%	Amount	%	Amount	%	Amount	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Union Pacific</b>										
1	UP Miles of Road Owned	UP 1994 R-1 Sch. 702	616	20.27%	692	51.99%	851	59.72%	2,159	37.26%
2	UP Freight Stations	Open & Prepay Register	130	21.21%	118	50.86%	194	56.40%	442	37.17%
3	1994 Freight Charges From UP Origins	1994 CWS 1/	\$88,093,372	16.10%	\$47,660,896	74.57%	\$186,407,509	44.06%	\$322,161,777	31.15%
4	1994 Freight Charges to UP Destinations	1994 CWS 1/	\$153,130,192	36.47%	\$102,047,240	68.58%	\$228,250,921	70.89%	\$483,428,353	54.28%
5	Total 1994 Freight Charges From/To UP O/D	L.3 + L.4	\$241,223,564	24.94%	\$149,708,136	70.38%	\$414,658,430	55.65%	\$805,590,130	41.85%
6	1994 Tons From UP Origins	1994 CWS 1/	2,327,337	8.71%	1,560,496	76.23%	11,521,746	48.51%	15,409,579	29.34%
7	1994 Tons to UP Destinations	1994 CWS 1/	3,613,852	24.35%	2,093,507	70.94%	5,504,933	64.38%	11,212,292	42.56%
8	Total 1994 Tons From/To UP O/D	L.6 + L.7	5,941,189	14.30%	3,654,003	73.11%	17,026,679	52.71%	26,621,871	33.76%
9	1994 Carloads From UP Origins	1994 CWS 1/	51,035	14.40%	22,372	73.06%	154,369	53.06%	227,776	33.69%
10	1994 Carloads to UP Destinations	1994 CWS 1/	88,504	31.02%	39,240	70.13%	104,873	67.27%	232,617	46.79%
11	Total 1994 Carloads From/To UP O/D	L.9 + L.10	139,539	21.81%	61,612	71.17%	259,242	58.02%	460,393	39.24%
12	1994 Variable Cost From UP Origins	1994 CWS 1/	\$61,556,365	15.38%	\$32,025,600	71.23%	\$135,102,899	47.55%	\$228,684,064	31.36%
13	1994 Variable Cost to UP Destinations	1994 CWS 1/	\$92,621,041	31.64%	\$57,311,716	61.32%	\$136,373,645	62.29%	\$286,306,402	47.31%
14	Total 1994 Variable Cost From/To UP O/D	L.12 + L.13	\$154,177,406	22.25%	\$89,337,316	64.54%	\$271,476,544	53.96%	\$514,991,266	38.59%
15	Average Rate Per Net Ton From UP Origins	L.3 / L.6	\$37.85	---	\$30.54	---	\$16.18	---	\$20.91	---
16	Average Rate Per Net Ton to UP Destinations	L.4 / L.7	\$42.37	---	\$48.74	---	\$41.45	---	\$43.12	---
17	Average Rate Per Net Ton From/To UP O/D	L.5 / L.8	\$40.60	---	\$40.97	---	\$24.35	---	\$30.26	---
18	Average Haul From UP Origins	1994 CWS 1/	1,202.9	---	970.3	---	566.3	---	703.3	---
19	Average Haul to UP Destinations	1994 CWS 1/	852.9	---	1,250.9	---	1,281.6	---	1,137.7	---
20	Average Haul From/To UP O/D	1994 CWS 1/	990.0	---	1,131.1	---	797.5	---	866.3	---
21	Average RVC From UP Origins	L.3 / L.12	143.11%	---	148.82%	---	137.97%	---	140.98%	---
22	Average RVC to UP Destinations	L.4 / L.13	165.33%	---	178.08%	---	167.37%	---	168.85%	---
23	Average RVC From/To UP O/D	L.5 / L.14	156.46%	---	167.58%	---	152.74%	---	156.43%	---

# **COLORADO, NEVADA AND UTAH RAILROAD MARKET**

Ln. No.	Item (1)	Source (2)	Colorado		Nevada		Utah		Total	
			Amount (3)	% (4)	Amount (5)	% (6)	Amount (7)	% (8)	Amount (9)	% (10)
Southern Pacific										
24	SP Miles of Road Owned	SP 1994 R-1 Sch. 702	1,136	37.36%	508	38.17%	533	37.40%	2,177	37.57%
25	SP Freight Stations	Open & Prepay Register	216	35.24%	87	37.50%	128	37.21%	431	36.25%
26	1994 Freight Charges From SP Origins	1994 CWS 1/	\$271,521,087	49.61%	\$16,254,088	25.43%	\$189,679,006	44.83%	\$477,454,181	46.16%
27	1994 Freight Charges to SP Destinations	1994 CWS 1/	\$53,657,284	12.78%	\$48,751,040	31.42%	\$85,496,065	26.86%	\$186,904,389	20.98%
28	Total 1994 Freight Charges From/To SP O/D	L.26 + L.27	\$325,178,371	33.62%	\$63,005,128	29.62%	\$276,175,071	37.07%	\$664,358,570	34.51%
29	1994 Tons From SP Origins	1994 CWS 1/	18,384,747	68.81%	486,516	23.77%	9,822,351	41.36%	28,693,614	54.64%
30	1994 Tons to SP Destinations	1994 CWS 1/	1,051,051	7.06%	857,768	29.06%	2,971,419	34.75%	4,880,238	18.52%
31	Total 1994 Tons From/To SP O/D	L.29 + L.30	19,435,798	46.77%	1,344,284	28.89%	12,793,770	39.61%	33,573,852	42.57%
32	1994 Carloads From SP Origins	1994 CWS 1/	196,973	55.56%	8,248	26.94%	109,910	37.78%	315,131	46.61%
33	1994 Carloads to SP Destinations	1994 CWS 1/	23,581	8.27%	16,712	26.87%	46,316	29.71%	86,609	17.42%
34	Total 1994 Carloads From/To SP O/D	L.32 + L.33	220,554	34.47%	24,960	28.83%	156,226	34.96%	401,740	34.24%
35	1994 Variable Cost From SP Origins	1994 CWS 1/	\$186,263,909	46.54%	\$12,934,017	28.77%	\$126,937,269	44.67%	\$326,135,195	44.72%
36	1994 Variable Cost to SP Destinations	1994 CWS 1/	\$42,249,936	14.43%	\$36,144,319	38.68%	\$78,651,961	35.01%	\$155,046,216	25.62%
37	Total 1994 Variable Cost From/To SP O/D	L.35 + L.36	\$228,513,845	32.98%	\$49,078,336	35.46%	\$203,589,230	40.47%	\$481,181,411	36.06%
38	Average Rate Per Net Ton From SP Origins	L.26 / L.29	\$14.77	---	\$33.41	---	\$19.31	---	\$16.64	---
39	Average Rate Per Net Ton to SP Destinations	L.27 / L.30	\$51.05	---	\$54.50	---	\$29.11	---	\$38.30	---
40	Average Rate Per Net Ton From/To SP O/D	L.28 / L.31	\$16.73	---	\$46.87	---	\$21.59	---	\$19.79	---
41	Average Haul From SP Origins	1994 CWS 1/	838.4	---	1,080.5	---	877.5	---	855.6	---
42	Average Haul to SP Destinations	1994 CWS 1/	1,349.6	---	1,495.7	---	1,483.7	---	1,456.9	---
43	Average Haul From/To SP O/D	1994 CWS 1/	866.0	---	1,338.2	---	1,018.3	---	943.0	---
44	Average RVC From SP Origins	L.26 / L.35	145.77%	---	125.67%	---	149.43%	---	146.40%	---
45	Average RVC to SP Destinations	L.27 / L.36	127.00%	---	129.35%	---	112.84%	---	120.55%	---
46	Average RVC From/To SP O/D	L.28 / L.37	142.30%	---	128.38%	---	135.65%	---	138.07%	---



# **COLORADO, NEVADA AND UTAH RAILROAD MARKET**

Ln. No.	Item (1)	Source (2)	Colorado		Nevada		Utah		Total	
			Amount (3)	% (4)	Amount (5)	% (6)	Amount (7)	% (8)	Amount (9)	% (10)
Union Pacific / Southern Pacific										
47	UP/SP Miles of Road Owned	L.1 + L.24	1,752	57.65%	1,200	90.16%	1,384	97.12%	4,336	74.82%
48	UP/SP Freight Stations - Pre-UP/SP Merger	L.2 + L.25	346	56.44%	205	88.36%	322	93.60%	873	73.42%
49	UP/SP Freight Stations - Post-UP/SP Merger	2/	346	56.44%	167	86.06%	304	93.25%	817	72.11%
50	1994 Freight Charges From UP/SP Origins	L.3 + L.26	\$359,614,459	65.71%	\$63,914,984	100.00%	\$376,066,515	88.89%	\$799,615,958	77.31%
51	1994 Freight Charges to UP/SP Destinations	L.4 + L.27	\$206,787,476	49.25%	\$148,798,280	100.00%	\$314,746,986	97.75%	\$670,332,742	75.26%
52	Total 1994 Freight Charges From/To UP/SP O/D	L.5 + L.28	\$566,401,935	58.56%	\$212,713,264	100.00%	\$690,833,501	92.72%	\$1,469,948,700	76.38%
53	1994 Tons From UP/SP Origins	L.6 + L.29	20,712,084	77.52%	2,047,012	100.00%	21,344,097	99.87%	44,103,193	83.98%
54	1994 Tons to UP/SP Destinations	L.7 + L.30	4,664,903	31.43%	2,951,275	100.00%	8,476,352	99.12%	16,092,530	61.08%
55	Total 1994 Tons From/To UP/SP O/D	L.8 + L.31	25,376,987	61.06%	4,998,287	100.00%	29,820,449	92.32%	60,195,723	76.33%
56	1994 Carloads From UP/SP Origins	L.9 + L.32	249,006	69.96%	30,620	100.00%	264,279	90.84%	542,907	80.30%
57	1994 Carloads to UP/SP Destinations	L.10 + L.33	112,085	39.29%	55,952	100.00%	151,189	96.97%	319,226	64.21%
58	Total 1994 Carloads From/To UP/SP O/D	L.11 + L.34	360,993	56.28%	86,572	100.00%	415,468	92.98%	862,133	73.49%
59	1994 Variable Cost From UP/SP Origins	L.12 + L.35	\$247,820,274	61.93%	\$44,959,617	100.00%	\$262,040,168	92.22%	\$554,820,059	76.08%
60	1994 Variable Cost to UP/SP Destinations	L.13 + L.36	\$134,870,977	46.07%	\$80,456,035	100.00%	\$213,025,605	97.30%	\$441,352,618	72.63%
61	Total 1994 Variable Cost From/To UP/SP O/D	L.14 + L.37	\$382,691,251	55.23%	\$136,415,652	100.00%	\$475,065,774	94.43%	\$996,172,677	74.65%
62	Average Rate Per Net Ton From UP/SP Origins	L.50 / L.53	\$17.36	---	\$31.22	---	\$17.62	---	\$18.13	---
63	Average Rate Per Net Ton to UP/SP Destinations	L.51 / L.54	\$44.33	---	\$50.42	---	\$37.13	---	\$41.65	---
64	Average Rate Per Net Ton From/To UP/SP O/D	L.52 / L.55	\$22.32	---	\$42.56	---	\$23.17	---	\$24.42	---
65	Average Haul From UP/SP Origins	1994 CWS 1/	879.4	---	991.7	---	709.5	---	802.4	---
66	Average Haul to UP/SP Destinations	1994 CWS 1/	964.8	---	1,322.1	---	1,352.4	---	1,234.5	---
67	Average Haul From/To UP/SP O/D	1994 CWS 1/	895.1	---	1,186.9	---	892.3	---	917.9	---
68	Average RVC From UP/SP Origins	L.50 / L.59	145.11%	---	142.16%	---	143.52%	---	144.12%	---
69	Average RVC to UP/SP Destinations	L.51 / L.60	153.32%	---	159.22%	---	147.75%	---	151.88%	---
70	Average RVC From/To UP/SP O/D	L.52 / L.61	148.00%	---	153.68%	---	145.40%	---	147.56%	---

# COLORADO, NEVADA AND UTAH RAILROAD MARKET

Ln. No.	Item	Source	Colorado		Nevada		Utah		Total	
			Amount	%	Amount	%	Amount	%	Amount	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Burlington Northern - Santa Fe</u>										
71	BNSF Miles of Road Owned	BNSF 1994 R-1 Sch. 702	1,005	33.07%	0	0.00%	0	0.00%	1,005	17.34%
72	BNSF Freight Stations	Open & Prepay Register	189	30.83%	1	0.43%	1	0.29%	191	16.06%
73	1994 Freight Charges From BNSF Origins	1994 CWS 1/	\$171,173,180	31.28%	\$0	0.00%	\$2,743,320	0.65%	\$173,916,500	16.82%
74	1994 Freight Charges to BNSF Destinations	1994 CWS 1/	\$202,493,397	48.23%	\$0	0.00%	\$7,249,560	2.25%	\$209,742,957	23.55%
75	Total 1994 Freight Charges From/To BNSF O/D	L.73 + L.74	\$373,666,577	38.64%	\$0	0.00%	\$9,992,880	1.31%	\$383,659,457	18.93%
76	1994 Tons From BNSF Origins	1994 CWS 1/	5,447,577	20.39%	0	0.00%	40,520	0.17%	5,488,097	10.45%
77	1994 Tons to BNSF Destinations	1994 CWS 1/	9,688,906	65.28%	0	0.00%	74,920	0.58%	9,763,826	37.06%
78	Total 1994 Tons From/To BNSF O/D	L.76 + L.78	15,136,483	36.42%	0	0.00%	115,440	0.36%	15,251,923	19.34%
79	1994 Carloads From BNSF Origins	1994 CWS 1/	99,636	28.10%	0	0.00%	2,560	0.88%	102,196	15.12%
80	1994 Carloads to BNSF Destinations	1994 CWS 1/	167,287	58.64%	0	0.00%	4,720	3.03%	172,007	34.60%
81	Total 1994 Carloads From/To BNSF O/D	L.79 + L.80	266,923	41.72%	0	0.00%	7,280	1.63%	274,203	23.37%
82	1994 Variable Cost From BNSF Origins	1994 CWS 1/	\$137,843,785	34.45%	\$0	0.00%	\$3,123,036	1.10%	\$140,966,821	19.33%
83	1994 Variable Cost to BNSF Destinations	1994 CWS 1/	\$148,180,846	50.61%	\$0	0.00%	\$5,903,480	2.70%	\$154,084,326	25.46%
84	Total 1994 Variable Cost From/To BNSF O/D	L.82 + L.83	\$286,004,631	41.27%	\$0	0.00%	\$9,026,516	1.79%	\$295,031,147	22.11%
85	Average Rate Per Net Ton From BNSF Origins	L.73 / L.76	\$31.42	---	\$0.00	---	\$67.70	---	\$31.69	---
86	Average Rate Per Net Ton to BNSF Destinations	L.74 / L.77	\$20.90	---	\$0.00	---	\$96.76	---	\$21.48	---
87	Average Rate Per Net Ton From/To BNSF O/D	L.75 / L.78	\$24.69	---	\$0.00	---	\$86.56	---	\$25.15	---
88	Average Haul From BNSF Origins	1994 CWS 1/	1,075.4	---	0.0	---	1,665.5	---	1,079.7	---
89	Average Haul to BNSF Destinations	1994 CWS 1/	680.3	---	0.0	---	1,624.0	---	687.5	---
90	Average Haul From/To BNSF O/D	1994 CWS 1/	822.5	---	0.0	---	1,638.6	---	828.7	---
91	Average RVC From BNSF Origins	L.73 / L.82	124.18%	---	0.00%	---	87.84%	---	123.37%	---
92	Average RVC to BNSF Destinations	L.74 / L.83	136.67%	---	0.00%	---	122.80%	---	136.14%	---
93	Average RVC From/To BNSF O/D	L.75 / L.84	130.65%	---	0.00%	---	110.71%	---	130.04%	---



# **COLORADO, NEVADA AND UTAH RAILROAD MARKET**

Ln. No.	Item	Source	Colorado		Nevada		Utah		Total	
			Amount	%	Amount	%	Amount	%	Amount	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Other Railroads</b>										
94	Other RR Miles of Road Owned	Misc. Sources	282	9.28%	131	9.84%	41	2.88%	454	7.83%
95	Other RR Freight Stations	Open & Prepay Register	78	12.72%	26	11.21%	21	6.10%	125	10.51%
96	1994 Freight Charges From Other RR Origins	1994 CWS 1/	\$16,492,780	3.01%	\$0	0.00%	\$44,258,014	10.46%	\$60,750,794	5.87%
97	1994 Freight Charges to Other RR Destinations	1994 CWS 1/	\$10,584,000	2.52%	\$0	0.00%	\$0	0.00%	\$10,584,000	1.19%
98	Total 1994 Freight Charges From/To Other RR O/D	L.96 + L.97	\$27,076,780	2.80%	\$0	0.00%	\$44,258,014	5.94%	\$71,334,794	3.71%
99	1994 Tons From Other RR Origins	1994 CWS 1/	557,092	2.09%	0	0.00%	2,365,427	9.96%	2,922,519	5.57%
100	1994 Tons to Other RR Destinations	1994 CWS 1/	488,590	3.29%	0	0.00%	0	0.00%	488,590	1.85%
101	Total 1994 Tons From/To Other RR O/D	L.99 + L.100	1,045,682	2.52%	0	0.00%	2,365,427	7.32%	3,411,109	4.33%
102	1994 Carloads From Other RR Origins	1994 CWS 1/	6,872	1.64%	0	0.00%	24,085	8.26%	30,957	4.58%
103	1994 Carloads to Other RR Destinations	1994 CWS 1/	5,900	2.07%	0	0.00%	0	0.00%	5,900	1.19%
104	Total 1994 Carloads From/To Other RR O/D	L.102 + L.103	12,772	2.00%	0	0.00%	24,085	5.39%	36,857	3.14%
105	1994 Variable Cost From Other RR Origins	1994 CWS 1/	\$14,518,506	3.63%	\$0	0.00%	\$18,989,534	6.68%	\$33,508,040	4.59%
106	1994 Variable Cost to Other RR Destinations	1994 CWS 1/	\$9,734,807	3.33%	\$0	0.00%	\$0	0.00%	\$9,734,807	1.61%
107	Total 1994 Variable Cost From/To Other RR O/D	L.105 + L.106	\$24,253,313	3.50%	\$0	0.00%	\$18,989,534	3.77%	\$43,242,847	3.24%
108	Average Rate Per Net Ton From Other RR Origins	L.96 / L.99	\$29.61	---	\$0.00	---	\$18.71	---	\$20.79	---
109	Average Rate Per Net Ton to Other RR Destinations	L.97 / L.100	\$21.66	---	\$0.00	---	\$0.00	---	\$21.66	---
110	Average Rate Per Net Ton From/To Other RR O/D	L.98 / L.101	\$25.69	---	\$0.00	---	\$18.71	---	\$20.91	---
111	Average Haul From Other RR Origins	1994 CWS 1/	1,156.0	---	0.0	---	770.8	---	844.2	---
112	Average Haul to Other RR Destinations	1994 CWS 1/	871.5	---	0.0	---	0.0	---	871.5	---
113	Average Haul From/To Other RR O/D	1994 CWS 1/	1,023.1	---	0.0	---	770.8	---	848.1	---
114	Average RVC From Other RR Origins	L.96 / L.105	113.60%	---	0.00%	---	233.07%	---	181.30%	---
115	Average RVC to Other RR Destinations	L.97 / L.106	108.72%	---	0.00%	---	0.00%	---	108.72%	---
116	Average RVC From/To Other RR O/D	L.98 / L.107	111.64%	---	0.00%	---	233.07%	---	164.96%	---

# COLORADO, NEVADA AND UTAH RAILROAD MARKET

Ln. No.	Item	Source	Colorado		Nevada		Utah		Total	
			Amount	%	Amount	%	Amount	%	Amount	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Total										
117	Miles of Road Owned	L.47 + L.71 + L.94	3,039	100.00%	1,331	100.00%	1,425	100.00%	5,795	100.00%
118	Total Freight Stations - Pre-UP/SP Merger	L.48 + L.72 + L.95	613	100.00%	232	100.00%	344	100.00%	1,189	100.00%
119	Total Freight Stations - Post-UP/SP Merger	L.49 + L.72 + L.95	613	100.00%	194	100.00%	326	100.00%	1,133	100.00%
120	1994 Freight Charges From All Origins	L.50 + L.73 + L.96	\$547,280,419	100.00%	\$63,914,984	100.00%	\$423,087,849	100.00%	\$1,034,283,252	100.00%
121	1994 Freight Charges to All Destinations	L.51 + L.74 + L.97	\$419,864,873	100.00%	\$148,798,280	100.00%	\$321,996,546	100.00%	\$890,659,699	100.00%
122	Total 1994 Freight Charges From/To All O/D	L.52 + L.75 + L.98	\$967,145,292	100.00%	\$212,713,264	100.00%	\$745,084,395	100.00%	\$1,924,942,951	100.00%
123	1994 Tons From All Origins	L.53 + L.76 + L.99	26,716,753	100.00%	2,047,012	100.00%	23,750,044	100.00%	52,513,809	100.00%
124	1994 Tons to All Destinations	L.54 + L.77 + L.100	14,842,399	100.00%	2,951,275	100.00%	8,551,272	100.00%	26,344,946	100.00%
125	Total 1994 Tons From/To All O/D	L.55 + L.78 + L.101	41,559,152	100.00%	4,998,287	100.00%	32,301,316	100.00%	78,858,755	100.00%
126	1994 Carloads From All Origins	L.56 + L.79 + L.102	354,516	100.00%	30,620	100.00%	290,924	100.00%	676,060	100.00%
127	1994 Carloads to All Destinations	L.57 + L.80 + L.103	285,272	100.00%	55,952	100.00%	155,909	100.00%	497,133	100.00%
128	Total 1994 Carloads From/To All O/D	L.58 + L.81 + L.104	639,788	100.00%	86,572	100.00%	446,833	100.00%	1,173,193	100.00%
129	1994 Variable Cost From All Origins	L.59 + L.82 + L.105	\$400,182,565	100.00%	\$44,959,617	100.00%	\$284,152,738	100.00%	\$729,294,920	100.00%
130	1994 Variable Cost to All Destinations	L.60 + L.83 + L.106	\$292,766,630	100.00%	\$93,456,035	100.00%	\$218,929,086	100.00%	\$605,151,751	100.00%
131	Total 1994 Variable Cost From/To All O/D	L.61 + L.84 + L.107	\$692,949,195	100.00%	\$138,415,652	100.00%	\$503,081,824	100.00%	\$1,334,446,671	100.00%
132	Average Rate Per Net Ton From All Origins	L.120 / L.123	\$20.48	---	\$31.22	---	\$17.81	---	\$19.70	---
133	Average Rate Per Net Ton to All Destinations	L.121 / L.124	\$28.29	---	\$50.42	---	\$37.65	---	\$33.81	---
134	Average Rate Per Net Ton From/To All O/D	L.122 / L.125	\$23.27	---	\$42.56	---	\$23.07	---	\$24.41	---
135	Average Haul From All Origins	1994 CWS 1/	925.1	---	991.7	---	717.2	---	833.7	---
136	Average Haul to All Destinations	1994 CWS 1/	776.0	---	1,322.1	---	1,354.8	---	1,025.1	---
137	Average Haul From/To All O/D	1994 CWS 1/	871.9	---	1,186.9	---	886.0	---	897.6	---
138	Average RVC From All Origins	L.120 / L.129	136.76%	---	142.16%	---	148.89%	---	141.82%	---
139	Average RVC to All Destinations	L.121 / L.130	143.41%	---	159.22%	---	147.08%	---	147.18%	---
140	Average RVC From/To All O/D	L.122 / L.131	139.57%	---	153.68%	---	148.10%	---	144.25%	---



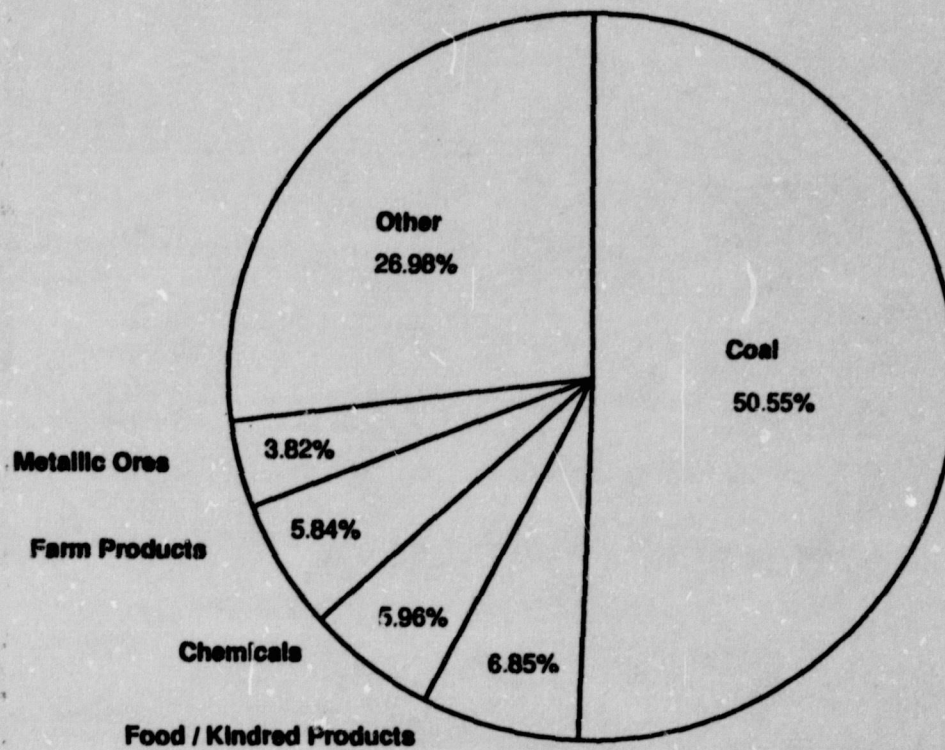
**COLORADO, NEVADA AND UTAH RAILROAD MARKET**

Ln.	<u>Colorado</u>	<u>Nevada</u>	<u>Utah</u>	<u>Total</u>
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**Footnotes:**

- 1/ Data was developed from a summary of records extracted from STB's 1994 CWS. Originating traffic includes records also terminating in CO, NV and UT, i.e., CO to CO, UT to NV, etc. The following records were excluded: records with no revenue or cost information; records with RVC ratios greater than 1000%; and records with RVC ratios less than 10%. The average haul represented a weighted average weighted by ton-miles.
- 2/ Freight stations adjusted to exclude 35 UFS/SP 2-to-1 points in NV and 15 in UT.

**CO / NV / UT TOTAL TONS  
ORIGINATED AND / OR TERMINATED**





**SUMMARY OF RAILROAD MOVEMENTS ORIGINATING  
FROM COLORADO, NEVADA, AND UTAH \***

STCC (1)	DESCRIPTION (2)	FROM COLORADO			FROM NEVADA			FROM UTAH			TOTAL FROM CO. NV & UT		
		TONS (3)	REVENUE (4)	R/YC (5)	TONS (6)	REVENUE (7)	R/YC (8)	TONS (9)	REVENUE (10)	R/YC (11)	TONS (12)	REVENUE (13)	R/YC (14)
11	Coal	17,268,083	\$231,854,265	153.34%	-	\$0	0.00%	15,548,248	\$202,742,748	218.22%	32,816,332	\$434,597,014	177.42%
20	Food or Kindred Products	3,136,580	\$144,880,958	141.82%	17,120	\$1,288,880	132.00%	880,828	\$1,887,452	124.80%	3,744,328	\$148,254,388	138.10%
28	Chemicals or Allied Products	173,320	\$5,874,800	118.87%	378,320	\$10,413,840	188.85%	2,132,320	\$55,221,744	115.77%	2,881,880	\$71,910,184	123.38%
01	Farm Products	1,084,510	\$48,112,778	184.17%	30,458	\$822,744	108.84%	803,825	\$11,312,237	120.48%	2,318,881	\$60,048,758	152.87%
14	Nonmetallic Minerals; Except Fuels	1,314,212	\$22,482,888	143.04%	852,880	\$27,001,880	128.43%	131,782	\$1,880,152	120.38%	2,298,884	\$51,124,800	134.53%
33	Primary Metal Products	357,720	\$10,234,320	115.13%	820	\$38,520	81.81%	1,708,720	\$50,554,300	121.88%	2,085,380	\$60,827,140	120.88%
32	Clay, Concrete, Glass or Stone Products	230,182	\$5,187,284	87.76%	550,024	\$11,428,536	135.33%	574,228	\$8,167,436	124.00%	1,354,444	\$25,783,236	122.25%
40	Waste or Scrap Materials	883,880	\$18,838,888	88.33%	80,752	\$2,018,836	172.33%	857,700	\$8,834,811	101.36%	1,432,332	\$28,880,815	88.53%
29	Petroleum or Coal Products	718,518	\$15,138,880	115.87%	8,380	\$185,880	81.87%	388,300	\$13,225,820	123.40%	1,123,178	\$28,528,500	118.08%
48	Miscellaneous Mixed Shipments	588,808	\$23,481,788	84.58%	54,240	\$2,444,780	85.20%	317,488	\$15,705,852	87.58%	840,344	\$41,812,200	88.88%
10	Metallic Ores	55,120	\$2,118,240	158.15%	7,200	\$331,200	148.85%	788,834	\$13,583,580	138.51%	850,154	\$18,034,000	141.82%
24	Lumber or Wood Products; Excl. Furn.	178,572	\$3,044,880	107.83%	5,720	\$230,280	130.47%	82,520	\$1,388,808	105.20%	247,812	\$1,841,788	107.88%
42	Containers	84,080	\$3,047,200	45.85%	3,120	\$28,200	88.81%	72,828	\$3,818,578	58.03%	140,128	\$7,171,878	53.14%
48	Other	78,800	\$2,453,120	131.33%	-	\$0	0%	820	\$28,800	107.18%	77,520	\$2,482,720	130.87%
37	Transportation Equipment	22,256	\$1,081,782	83.18%	4,280	\$734,720	178.21%	43,520	\$2,813,480	123.82%	70,056	\$4,808,882	120.87%
41	Miscellaneous Freight Shipments	15,172	\$2,852,232	284.73%	33,040	\$5,758,532	223.28%	3,880	\$278,580	105.02%	51,882	\$8,885,324	231.20%
44	Freight Forwarder Traffic	18,240	\$3,088,880	237.72%	-	\$0	0.00%	28,372	\$3,248,880	155.77%	47,812	\$8,348,840	187.28%
43	Mail and Express Traffic	43,880	\$1,708,240	80.13%	-	\$0	0.00%	3,200	\$101,480	88.51%	47,080	\$1,810,720	80.88%
13	Crude Petroleum, Natural Gas or Gasoline	-	\$0	0.00%	-	\$0	0.00%	42,112	\$1,755,432	85.84%	42,112	\$1,755,432	85.84%
38	Miscellaneous Products of Manufacturing	13,400	\$457,200	74.50%	2,180	\$186,400	80.84%	16,720	\$2,137,800	88.48%	34,280	\$2,784,200	85.88%
28	Pulp, Paper, or Allied Products	15,820	\$858,520	88.73%	3,800	\$270,880	108.28%	-	\$0	0.00%	18,520	\$827,480	78.84%
30	Rubber or Miscellaneous Plastics Products	18,880	\$883,280	82.52%	1,800	\$108,720	137.47%	-	\$0	0.00%	18,480	\$1,082,000	85.84%
27	Printed Matter	14,840	\$388,380	74.02%	-	\$0	0.00%	800	\$57,880	110.23%	15,240	\$448,320	77.32%
34	Fabricated Metal Products	7,240	\$288,040	71.41%	5,882	\$384,580	121.88%	880	\$318,880	107.57%	14,182	\$881,480	88.84%
18	Ordinance or Accessories	800	\$28,200	82.80%	11,188	\$287,818	81.13%	-	\$0	0.00%	11,888	\$315,818	81.02%
35	Machinery, Except Electrical	7,840	\$183,780	70.87%	-	\$0	0.00%	1,320	\$143,800	158.23%	8,160	\$327,580	83.23%
38	Electrical Machinery or Equipment	7,532	\$358,028	138.10%	-	\$0	0.00%	-	\$0	0.00%	7,532	\$358,028	138.10%
47	Small Packaged Freight Shipments	2,200	\$88,280	84.31%	480	\$43,800	110.17%	4,580	\$282,120	110.05%	7,240	\$425,000	108.34%
23	Apparel, or Other Finished Textile Products	1,480	\$47,800	81.88%	-	\$0	0.00%	3,800	\$83,780	78.38%	5,280	\$911,580	104.30%
25	Furniture or Fixture	1,180	\$75,400	83.82%	-	\$0	0.00%	4,000	\$183,800	103.88%	5,180	\$238,000	100.58%
38	Instruments	2,400	\$128,320	121.51%	-	\$0	0.00%	720	\$32,780	123.31%	3,120	\$182,080	123.72%
31	Leather or Leather Products	2,580	\$311,000	128.08%	-	\$0	0.00%	-	\$0	0.00%	2,580	\$311,000	128.08%
22	Textile Mill Products	580	\$35,120	88.84%	-	\$0	0.00%	-	\$0	0.00%	580	\$35,120	88.84%
	<b>TOTAL</b>	<b>28,715,153</b>	<b>\$547,288,378</b>	<b>138.77%</b>	<b>2,847,532</b>	<b>\$83,857,484</b>	<b>142.81%</b>	<b>23,751,124</b>	<b>\$423,117,408</b>	<b>148.88%</b>	<b>52,513,808</b>	<b>\$1,034,283,252</b>	<b>141.82%</b>

\* Includes traffic originating and terminating in CO, NV and UT.

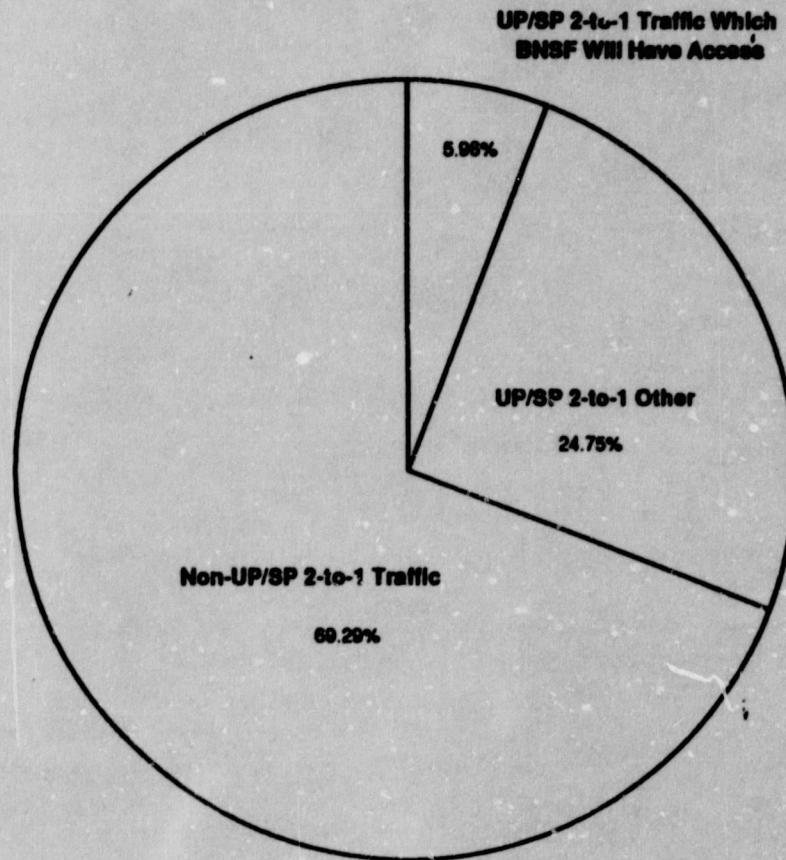
# SUMMARY OF RAILROAD TRAFFIC TERMINATING IN COLORADO, NEVADA AND UTAH \*

STCC (1)	DESCRIPTION (2)	TO COLORADO			TO NEVADA			TO UTAH			TOTAL TO CO, NV & UT		
		TONS (3)	REVENUE (4)	R/YC (5)	TONS (6)	REVENUE (7)	R/YC (8)	TONS (9)	REVENUE (10)	R/YC (11)	TONS (12)	REVENUE (13)	R/YC (14)
11	Coal	5,440,870	\$47,971,417	237.83%	875,415	\$10,843,200	241.37%	727,937	\$10,774,063	102.37%	7,044,222	\$69,588,700	187.77%
28	Chemicals or Allied Products	703,484	\$28,737,756	181.80%	818,104	\$40,565,448	152.31%	488,432	\$21,711,200	157.19%	2,010,020	\$89,014,404	181.40%
01	Farm Products	1,610,524	\$22,883,088	156.19%	15,840	\$312,140	75.57%	882,240	\$11,714,848	125.42%	2,286,604	\$34,720,084	142.98%
10	Metallic Ores	11,800	\$718,780	224.48%	36,340	\$2,442,088	183.11%	2,105,807	\$48,238,487	128.32%	2,153,747	\$48,388,345	130.51%
24	Lumber or Wood Products	1,051,052	\$38,572,408	115.45%	252,120	\$15,578,120	179.22%	388,280	\$12,354,440	125.85%	1,689,452	\$64,505,968	128.53%
20	Food or Kindred Products	1,204,688	\$41,141,884	138.36%	107,440	\$5,828,380	118.22%	342,632	\$14,018,824	118.84%	1,654,760	\$60,987,148	131.58%
46	Miscellaneous Mixed Shipments	1,001,784	\$81,857,488	117.58%	173,200	\$20,227,240	140.07%	452,858	\$37,088,044	151.17%	1,627,840	\$118,950,772	130.13%
40	Waste or Scrap Materials	488,470	\$8,474,888	108.84%	25,040	\$585,120	155.95%	817,082	\$32,125,484	155.82%	1,309,602	\$42,185,482	142.23%
32	Clay, Concrete, Glass or Stone Products	728,284	\$18,427,400	117.38%	83,578	\$1,884,504	148.72%	341,804	\$8,858,818	134.78%	1,153,764	\$24,880,820	123.41%
29	Petroleum or Coal Products	244,838	\$7,348,840	118.01%	215,878	\$7,754,856	181.78%	635,012	\$17,844,388	125.38%	1,085,524	\$32,748,084	130.51%
48	Other	-	\$0	0.00%	15,280	\$1,721,240	210.05%	438,588	\$18,545,188	188.78%	453,868	\$20,286,436	171.88%
26	Pulp, Paper, or Allied Products	808,680	\$31,418,240	128.88%	58,120	\$3,488,820	127.34%	215,180	\$8,728,400	138.82%	879,880	\$44,638,560	128.82%
37	Transportation Equipment	518,931	\$84,813,880	220.81%	78,800	\$17,284,440	187.05%	278,818	\$44,053,882	248.55%	875,347	\$128,152,082	225.30%
33	Primary Metal Products	401,488	\$15,285,888	128.08%	51,048	\$2,308,160	118.08%	370,888	\$13,385,144	118.55%	823,424	\$30,978,872	122.84%
14	Nonmetallic Minerals, Except Fuels	482,780	\$8,282,872	134.01%	-	\$0	0.00%	3,880	\$88,480	87.21%	486,720	\$8,391,432	133.48%
35	Machinery, Except Electrical	88,040	\$3,238,200	87.03%	18,180	\$2,038,200	148.11%	12,320	\$1,214,440	151.05%	88,520	\$8,487,440	117.85%
44	Freight Forwarder Traffic	17,840	\$1,487,400	174.50%	3,080	\$388,040	170.43%	80,740	\$7,711,808	221.45%	81,880	\$8,577,248	210.18%
30	Rubber or Miscellaneous Plastics Products	23,380	\$2,131,880	118.07%	38,080	\$4,884,800	152.37%	17,320	\$2,087,080	80.58%	78,780	\$8,183,760	120.20%
42	Containers, Carriers or Devices, Shipping	48,080	\$3,573,888	82.58%	1,880	\$82,320	134.23%	17,040	\$1,188,780	73.84%	65,000	\$4,856,078	85.73%
25	Furniture or Fixture	31,880	\$2,875,580	88.88%	4,520	\$888,520	150.02%	24,580	\$1,905,880	150.04%	60,780	\$5,588,780	117.55%
13	Crude Petroleum, Natural Gas or Gasoline	22,880	\$455,880	213.50%	-	\$0	0.00%	38,880	\$802,380	130.83%	61,780	\$1,258,180	150.18%
36	Electrical Machinery	45,320	\$8,582,000	121.23%	10,280	\$1,438,580	170.83%	5,580	\$831,080	151.78%	61,180	\$8,848,840	130.02%
41	Miscellaneous Freight Shipments	28,288	\$1,887,340	155.37%	-	\$0	0.00%	27,148	\$3,978,800	288.48%	55,416	\$5,867,140	218.84%
18	Ordinance or Accessories	8,840	\$187,200	73.15%	28,478	\$2,888,704	288.32%	18,000	\$1,504,832	232.23%	54,118	\$4,588,536	200.00%
34	Fabricated Metal Products	36,580	\$2,308,080	100.50%	8,240	\$888,880	188.88%	2,180	\$384,320	122.11%	47,000	\$3,588,280	117.23%
47	Small Packaged Freight Shipments	2,320	\$188,520	128.84%	8,520	\$888,840	144.30%	38,720	\$2,218,380	154.47%	47,560	\$3,082,720	158.53%
38	Miscellaneous Products of Manufacturing	14,480	\$881,400	108.11%	8,040	\$1,488,440	138.41%	3,780	\$388,200	102.88%	27,280	\$2,750,040	122.02%
23	Apparel or Other Finished Textile Products	2,720	\$245,800	120.41%	17,400	\$1,830,320	118.23%	1,440	\$284,040	172.78%	21,560	\$2,488,880	121.38%
27	Printed Matter	18,440	\$851,440	103.82%	1,580	\$138,320	127.25%	3,180	\$328,120	128.27%	21,180	\$1,313,880	111.28%
43	Mail and Express Traffic	7,280	\$458,840	147.03%	2,520	\$84,400	231.34%	5,880	\$428,840	178.28%	15,880	\$873,880	184.24%
08	Forest Products	4,580	\$384,080	121.84%	-	\$0	0.00%	720	\$34,080	182.28%	5,280	\$418,180	127.11%
22	Textile Mill Products	3,800	\$218,240	111.05%	820	\$187,203	87.25%	-	\$0	0.00%	4,520	\$408,440	104.24%
21	Tobacco Products	1,520	\$101,800	101.00%	-	\$0	0.00%	1,180	\$130,320	114.78%	2,880	\$231,820	108.30%
45	Shipper Association or Similar Traffic	840	\$78,000	122.88%	-	\$0	0.00%	1,320	\$78,880	188.28%	2,180	\$155,880	148.87%
38	Instruments, Photographic or Optical Goods	180	\$38,720	143.44%	1,800	\$232,400	153.81%	-	\$0	0.00%	1,880	\$272,120	152.20%
31	Leather or Leather Products	380	\$73,840	258.88%	-	\$0	0.00%	-	\$0	0.00%	380	\$73,840	258.88%
	Total	14,842,388	\$418,884,873	143.41%	2,851,275	\$148,788,288	158.22%	8,851,272	\$321,888,548	147.88%	26,344,848	\$888,858,888	147.18%

\* Excludes traffic originating and terminating in CO, NV and/or UT



**CO / NV / UT LOCAL TONS  
ORIGINATED AND/OR TERMINATED**



ANALYSIS OF UP / SP 2-TO-1 CO / NV / UT TRAFFIC

LN. NO.	ORIGIN (1)	DESTINATION (2)	CARS (3)	TONS (4)	MILES (5)	FREIGHT CHARGES (6)	RATE/ TON (7)	VARIABLE COST (8)	COST / TON (9)	RVC (10)
<b><u>I. UP / SP 2-to-1 Traffic Currently Handled by BNSF (Intermodal via Salt Lake City, UT)</u></b>										
1	BNSF (Other States)	UP/SP 2-to-1 (BN-UT)								
2	UP/SP 2-to-1 (BN-UT)	BNSF (All States)								
3	UP/SP 2-to-1 (BN-UT)	Other RR (All States)								
4	Sub - Total / Average									
5	Percent of Total UP / SP 2-to-1 Traffic (L.23)									
6	Percent of Total CO, NV and UT Traffic (L.49)									
<b><u>II. UP / SP 2-to-1 Market Which BNSF Would Have Access to Under the BNSF/UTAH Settlement Agreements</u></b>										
7	Other RR (Other States)	UP/SP 2 to 1 (NV/UT)	29,723	2,444,127	1,824.1	\$74,808,057	\$30.81	\$53,571,939	\$21.92	139.64%
8	UP/SP 2 to 1 (NV/UT)	Other RR (All States)	12,527	887,738	1,898.2	\$35,534,600	\$40.03	\$31,918,992	\$35.96	111.33%
9	UP/SP 2 to 1 (NV/UT)	BNSF (All States)	8,854	777,234	1,173.5	\$23,139,951	\$29.77	\$16,414,359	\$21.12	140.97%
10	BNSF (Other States)	UP/SP 2 to 1 (NV/UT)	5,868	427,464	1,082.8	\$15,489,196	\$36.24	\$11,028,300	\$25.80	140.44%
11	UP/SP 2 to 1 (NV/UT)	UP/SP 2 to 1 (NV/UT)	1,818	144,524	215.8	\$1,819,168	\$12.59	\$1,133,570	\$7.98	157.70%
12	Other RR (CO/NV/UT)	UP/SP 2 to 1 (NV/UT)	120	11,480	631.5	\$265,080	\$23.09	\$179,232	\$15.61	147.88%
13	BNSF (CO/NV/UT)	UP/SP 2 to 1 (NV/UT)	80	7,680	629.6	\$134,720	\$17.54	\$125,583	\$16.35	107.28%
14	Sub - Total / Average		58,988	4,700,247	1,608.7	\$151,190,772	\$32.17	\$114,392,995	\$24.34	132.17%
15	Percent of Total UP / SP 2-to-1 Traffic (L.23)		16.04%	19.41%		28.06%		29.64%		
16	Percent of Total CO, NV and UT Traffic (L.49)		5.03%	5.98%		7.85%		8.57%		
<b><u>III. UP / SP 2-to-1 Traffic Which Would Not Be Covered by the Settlement Agreements</u></b>										
17	UP/SP 2 to 1 (NV/UT)	UP/SP 1 to 1 (All States)	159,754	11,457,978	639.6	\$203,510,626	\$17.76	\$142,989,767	\$12.48	142.33%
18	UP/SP 1 to 1 (Other States)	UP/SP 2 to 1 (NV/UT)	98,956	4,472,264	1,016.8	\$145,167,455	\$32.46	\$101,626,795	\$22.72	142.84%
19	UP/SP 1 to 1 (CO/NV/UT)	UP/SP 2 to 1 (NV/UT)	42,671	3,473,243	252.0	\$28,487,183	\$8.20	\$17,863,158	\$5.14	159.47%
20	Sub - Total / Average		301,381	19,403,485	657.1	\$377,165,264	\$19.44	\$262,479,730	\$13.53	143.69%
21	Percent of Total UP / SP 2-to-1 Traffic (L.23)		81.98%	80.12%		70.06%		68.02%		
22	Percent of Total CO, NV and UT Traffic (L.49)		25.66%	24.61%		19.59%		19.67%		
<b><u>Total UP / SP 2-to-1 Traffic (L. II and III)</u></b>										
23	Sub - Total / Average		367,649	24,219,172	846.5	\$538,346,916	\$22.23	\$385,892,241	\$15.93	139.51%
24	Percent of Total CO, NV and UT Traffic (L.49)		31.34%	30.71%		27.97%		28.92%		



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ANALYSIS OF UP/SP 2-TO-1 CO/NV/UT TRAFFIC

LN. NO.	ORIGIN (1)	DESTINATION (2)	CARS (3)	TONS (4)	MILES (5)	FREIGHT CHARGES (6)	RATE/ TON (7)	VARIABLE COST (8)	COST / TON (9)	RVC (10)
IV. Other UP / SP Traffic Which Would Not Be Covered Under the Settlement Agreements										
25	UP/SP 1 to 1 (CO/NV/UT)	UP/SP 1 to 1 (All States)	263,369	22,076,412	756.6	\$387,082,540	\$17.53	\$243,192,248	\$11.02	159.17%
26	UP/SP 1 to 1 (Other States)	UP/SP 1 to 1 (CO/NV/UT)	147,946	6,724,304	1,044.3	\$296,180,454	\$44.05	\$188,270,230	\$28.00	157.32%
27	UP/SP 1 to 1 (CO/NV/UT)	Other RR (All States)	51,739	5,114,583	1,518.7	\$114,447,008	\$22.38	\$92,225,718	\$18.03	124.09%
28	Other RR (Other States)	UP/SP 1 to 1 (CO/NV/UT)	26,021	1,337,579	1,883.0	\$104,109,868	\$80.83	\$66,581,691	\$49.78	162.37%
29	UP/SP 1 to 1 (CO/NV/UT)	BNSF (All States)	26,262	2,536,908	752.2	\$49,852,896	\$19.65	\$28,051,771	\$11.06	177.72%
30	BNSF (CO/NV/UT)	UP/SP 1 to 1 (All States)	10,620	777,916	1,261.9	\$35,654,460	\$45.83	\$22,651,479	\$29.12	157.40%
31	BNSF (Other States)	UP/SP 1 to 1 (CO/NV/UT)	10,712	686,792	1,248.3	\$30,577,712	\$44.52	\$20,272,663	\$29.52	150.83%
32	UP/SP 1 to 1 (Other States)	BNSF (CO/NV/UT)	4,776	352,024	1,042.8	\$13,650,800	\$38.78	\$8,481,691	\$24.09	160.94%
33	Other RR (CO/NV/UT)	UP/SP 1 to 1 (All States)	3,180	270,456	1,065.8	\$7,476,000	\$27.64	\$6,415,552	\$23.72	116.53%
34	UP/SP 1 to 1 (Other States)	Other RR (CO/NV/UT)	<u>1,600</u>	<u>128,400</u>	<u>1,171.3</u>	<u>\$3,428,100</u>	<u>\$26.70</u>	<u>\$3,280,851</u>	<u>\$25.55</u>	<u>104.49%</u>
35	Sub - Total / Average		546,225	40,005,374	964.0	\$1,046,459,838	\$26.16	\$679,423,894	\$16.98	154.02%
36	Percent of Total CO, NV and UT Traffic (L-49)		46.56%	50.73%		54.36%		50.91%		
V. Traffic Which UP / SP Does Not Serve As The Origin or Destination Carrier										
37	BNSF (Other States)	BNSF (CO/NV/UT)	155,071	8,823,786	623.9	\$105,446,577	\$18.75	\$123,619,414	\$14.01	133.84%
38	BNSF (CO/NV/UT)	BNSF (All States)	76,252	2,777,685	872.0	\$81,422,312	\$21.29	\$79,868,084	\$21.14	100.69%
39	BNSF (CO/NV/UT)	Other RR (All States)	12,684	884,296	1,784.0	\$54,961,688	\$62.15	\$35,196,639	\$39.80	156.15%
40	Other RR (Other States)	BNSF (CO/NV/UT)	7,440	513,096	1,401.1	\$23,556,020	\$45.60	\$16,059,741	\$31.30	145.68%
41	Other RR (CO/NV/UT)	BNSF (All States)	2,912	228,256	1,209.0	\$6,611,320	\$28.96	\$6,043,977	\$26.48	109.39%
42	BNSF (Other States)	Other RR (CO/NV/UT)	3,700	307,390	679.7	\$5,746,100	\$18.69	\$5,249,606	\$17.08	109.46%
43	Other RR (CO/NV/UT)	Other RR (All States)	660	46,900	1,546.2	\$2,140,380	\$45.64	\$1,879,725	\$40.08	113.87%
44	Other RR (Other States)	Other RR (CO/NV/UT)	<u>600</u>	<u>52,800</u>	<u>1,259.6</u>	<u>\$1,409,800</u>	<u>\$26.70</u>	<u>\$1,204,350</u>	<u>\$22.81</u>	<u>117.06%</u>
45	Sub - Total / Average		259,319	14,634,209	800.9	\$340,134,197	\$23.24	\$269,123,536	\$18.39	126.39%
46	Percent of Total CO, NV and UT Traffic (L-49)		22.10%	18.56%		17.67%		20.17%		
Total Colorado, Nevada and Utah Railroad Traffic										
47	From CO, NV and UT	To All Destinations	676,060	52,513,809	833.7	\$1,034,283,252	\$19.70	\$729,294,920	\$13.89	141.82%
48	From All Other Origins	To CO, NV and UT	<u>497,133</u>	<u>26,344,846</u>	<u>1,025.1</u>	<u>\$890,659,699</u>	<u>\$33.81</u>	<u>\$605,151,751</u>	<u>\$22.97</u>	<u>147.18%</u>
49	Total CO, NV and UT Traffic		1,173,193	78,858,755	897.6	\$1,924,942,951	\$24.41	\$1,334,446,671	\$16.92	144.25%



**EXHIBIT A**

**Points Referred to in Section 1b**

Provo UT  
Salt Lake City UT  
Ogden UT  
Ironton UT  
Gatex UT  
Pioneer UT  
Garfield/Smelter/Magna UT (access to Kennecott private railway)  
Geneva UT  
Clearfield UT  
Woods Cross UT  
Relico UT  
Evona UT  
Little Mountain UT  
Weber Industrial Park UT  
Points on paired track from Weso NV to Alazon NV  
Reno NV (intermodal and automotive only -  
    BNSF must establish its own automotive facility)  
Herlong CA  
Johnson Industrial Park at Sacramento CA  
West Sacramento CA (Farmers Rice)  
Port of Sacramento CA  
Points between Oakland CA and San Jose CA (including Warm Springs CA,  
    Fremont CA, Elmhurst CA, Shinn CA, Kohler CA, and Melrose CA)  
San Jose CA

**Points Referred to in Section 3a**

Ontario CA  
La Habra CA  
Fullerton CA

**LIST OF UP / SP 2 TO 1 POINTS IN UTAH AND NEVADA REFERRED TO IN  
THE TRACKAGE RIGHTS AGREEMENTS BETWEEN UP / SP AND BNSF / UTAH**

<u>City / State</u> (1)	<u>Current Railroad Service</u> (2)	<u>SPLC</u> (3)
<b><u>Specific Points in Utah Referred to in Section 1b</u></b>		
Provo, UT	DRGW / UP / UTAH	764350
Salt Lake City, UT	DRGW / SLGW / UP	762800
Ogden, UT	DRGW / SP / UP	761560
Ironton, UT	DRGW / UP	764359
Gatax, UT	UP	764352
Pioneer, UT	UP	762801
Garfield, UT	DRGW / UP	762928
Smelter, UT	UP	762916
Magna, UT	DRGW	762954
Geneva, UT	DRGW / UP	764345
Clearfield, UT	DRGW / UP	762725
Woods Cross, UT	DRGW / UP	762793
Relico, UT	UP	761567
Evans, UT	DRGW / UP	761532 / 761534
Little Mountain, UT	SP / UP	761578
Weber Industrial Park, UT	UP	761585
<b><u>Points on Paired Track from Wesp. NV and Alazon. NV</u></b>		
Wesp. NV	SP / UP	861164
Tule, NV	SP / UP	861163
Golconda, NV	SP / UP	861158 / 861160
Iron Point, NV	SP / UP	861153
Red House, NV	SP / UP	861151
Knight, NV	SP / UP	861152
Vaimy, NV	SP / UP	861194
Ellison, NV	SP / UP	861192
Mote, NV	SP / UP	861196
Battle Mountain, NV	SP / UP	863119
Russells, NV	SP / UP	861115
Rennox, NV	SP / UP	861116
Kampos, NV	SP / UP	863114
Dunphy, NV	SP / UP	862518
Argenta, NV	SP / UP	863113
Mosil, NV	SP / UP	863111
Beowawe, NV	SP / UP	862516
Harney, NV	SP / UP	862514
Berth, NV	SP / UP	862513
Palisade, NV	SP / UP	862511
Carlin, NV	SP / UP	860188
Vivian, NV	SP / UP	860186
Hunter, NV	SP / UP	860182
Moleen, NV	SP / UP	860184
Elko, NV	SP / UP	860180
Coin, NV	SP / UP	860178
Pardo, NV	SP / UP	860176
Osino, NV	SP / UP	860175
Ryndon, NV	SP / UP	860174
Elburz, NV	SP / UP	860149
Halleck, NV	SP / UP	860148
Rasid, NV	SP / UP	860147
Deeth, NV	SP / UP	860144
Nardi, NV	SP / UP	860143
Tulasco, NV	SP / UP	860142
Alazon, NV	SP / UP	860141



**LIST OF UP / SP 2 TO 1 POINTS IN UTAH AND NEVADA REFERRED TO IN  
THE TRACKAGE RIGHTS AGREEMENTS BETWEEN UP / SP AND BNSF / UTAH**

<u>City / State</u> (1)	<u>Current Railroad Service</u> (2)	<u>SPLC</u> (3)
<b><u>Specific Point in Nevada Referred to in Section 1b</u></b>		
Reno, NV (Intermodal & Automotive Only)	SP / UP	864170
<b><u>Points on the Nevada Northern via Shafter, NV Interchange</u></b>		
Shafter, NV	NN / UP	860164
Cobre, NV	NN	860132
Gravel Pit, NV	NN	860151
Decoy, NV	NN	860165
Dolly Varden, NV	NN	860191
Mizpah, NV	NN	860193
Currie, NV	NN	860194
Goshute, NV	NN	860196
Greens, NV	NN	862121
Cherry Creek, NV	NN	862123
Ray, NV	NN	862125
Ralff, NV	NN	862129
Warm Springs, NV	NN	862154
Steptoe, NV	NN	862153
Glenn, NV	NN	862155
McGill Jct., NV	NN	862159
McGill, NV	NN	862157
Hilline, NV	NN	862181
Cannon, NV	NN	862179
East Ely, NV	NN	862182
Ely, NV	NN	862183
Lane, NV	NN	862184
Keystone, NV	NN	862185
Copper Flat, NV	NN	862186
Ruth, NV	NN	862187
Kimberly, NV	NN	862189
<b><u>Utah Railway Points via Utah Railway Junction, Provo, UT and Grand Jct., CO Interchanges</u></b>		
Hiawatha, UT	UTAH	763897
Mohrland, UT	UTAH	765333
Wattis Jct., UT	UTAH	763894
Wattis, UT	UTAH	763895
Healy, UT	UTAH	763893
Gordon Creek, UT	UTAH	763891
Dannah, UT	UTAH	763855
Wild Cat, UT	UTAH	763861
Jacobs, UT	UTAH	763851
Peerless, UT	UTAH	763853
Spring Canyon, UT	UTAH	763852
Martin, UT	UTAH	763849
Utah Railway Junction, UT	UTAH / DRGW	763846
Soldier Summit, UT	UTAH	764194
Thistle, UT	UTAH	764377
Springville, UT	UTAH	764371
Price, UT (Aoco)	DRGW	763807
<b><u>Points on the Salt Lake, Garfield and Western via Salt Lake City, UT Interchange</u></b>		
Gadsby, UT	SLGW	762845
City Limits, UT	SLGW	762923
Saltair Jct., UT	SLGW	762325
Salt Ponds, UT	SLGW	762927





**DEVELOPMENT OF EFFECTIVE TRACKAGE RIGHTS COMPENSATION PER  
CARLOAD, CAR - MILE, NET TON AND NET TON - MILE BASED ON THE  
3.0 MILL BULK RATE FOR MOVEMENTS IN THE CENTRAL CORRIDOR**

Ln. No.	From (1)	To (2)	RR (3)	Miles (4)	Trackage Rights Rate Per Ton-Mile (5)	Tons Per Car (6)	Tare Weight (7)	Empty Return (8)	Gross Tons Per Car (9)	Loco. GTM Rate (10)	Gross Ton-Miles Per Car (11)	Effective Trackage Rights Compensation Per:			
												Carload (12)	Car-Mile (13)	Net Ton (14)	Net Ton-Mile (15)
1	Denver, CO	Provo, UT	SP	525.0	\$0.0030	100	30	2.00	160			\$277.45	\$0.528476	\$2.77	\$0.005276
2	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0030	100	30	2.00	160			\$23.25	\$0.528409	\$0.23	\$0.005227
3	Denver, CO	Salt Lake City, UT		569.0	\$0.0030	100	30	2.00	160			\$300.71	\$0.528489	\$3.01	\$0.005290
4	Salt Lake City, UT	Ogden, UT	UP	35.7	\$0.0030	100	30	2.00	160			\$18.87	\$0.528571	\$0.19	\$0.005322
5	Ogden, UT	Little Mountain, UT	SP	14.1	\$0.0030	100	30	2.00	160			\$7.45	\$0.528399	\$0.07	\$0.004985
6	Salt Lake City, UT	Little Mountain, UT		49.8	\$0.0030	100	30	2.00	160			\$26.32	\$0.528514	\$0.26	\$0.005221
7	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0030	100	30	2.00	160			\$23.25	\$0.528409	\$0.23	\$0.005227
8	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0030	100	30	2.00	160			\$36.41	\$0.528447	\$0.36	\$0.005225
9	Alazon, NV	Weso, NV	SP	182.7	\$0.0030	100	30	2.00	160			\$96.55	\$0.528462	\$0.97	\$0.005309
10	Weso, NV	Stockton, CA	UP	442.2	\$0.0030	100	30	2.00	160			\$233.89	\$0.528471	\$2.34	\$0.005292
11	Provo, UT	Stockton, CA		737.8	\$0.0030	100	30	2.00	160			\$389.91	\$0.528477	\$3.90	\$0.005286
12	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0030	100	30	2.00	160			\$36.41	\$0.528447	\$0.36	\$0.005225
13	Alazon, NV	Weso, NV	SP	182.7	\$0.0030	100	30	2.00	160			\$96.55	\$0.528462	\$0.97	\$0.005309
14	Weso, NV	Richmond, CA	SP	405.9	\$0.0030	100	30	2.00	160			\$214.51	\$0.528480	\$2.15	\$0.005297
15	Richmond, CA	Oakland, CA	SP	8.8	\$0.0030	100	30	2.00	160			\$4.65	\$0.528409	\$0.05	\$0.005682
16	Salt Lake City, UT	Oakland, CA		666.3	\$0.0030	100	30	2.00	160			\$352.13	\$0.528486	\$3.52	\$0.005283
17	Oakland, CA	San Jose, CA	SP	44.3	\$0.0030	100	30	2.00	160			\$23.41	\$0.528442	\$0.23	\$0.005192

**DEVELOPMENT OF EFFECTIVE TRACKAGE RIGHTS COMPENSATION PER  
CARLOAD, CAR-MILE, NET TON AND NET TON-MILE BASED ON THE  
3.1 MILL GENERAL RATE FOR MOVEMENTS IN THE CENTRAL CORRIDOR**

Ln. No.	From (1)	To (2)	RR (3)	Miles (4)	Trackage Rights Rate Per Ton-Mile (5)	Tons Per Car (6)	Tare Weight (7)	Empty Return (8)	Gross Tons Per Car (9)	Loco. GTM Ratio (10)	Gross Ton-Miles Per Car (11)	Effective Trackage Rights Compensation Per:			
					Carload (12)	Car-Mile (13)	Net Ton (14)	Net Ton-Mile (15)							
1	Denver, CO	Provo, UT	SP	525.0	\$0.0031	67.0	34.2	1.75	126.85			\$227.30	\$0.432952	\$3.39	\$0.006457
2	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0031	67.0	34.2	1.75	126.85			\$19.05	\$0.432955	\$0.28	\$0.006364
3	Denver, CO	Salt Lake City, UT		569.0	\$0.0031	67.0	34.2	1.75	126.85			\$246.35	\$0.432953	\$3.68	\$0.006467
4	Salt Lake City, UT	Ogden, UT	UP	35.7	\$0.0031	67.0	34.2	1.75	126.85			\$15.46	\$0.433053	\$0.23	\$0.006443
5	Ogden, UT	Little Mountain, UT	SP	14.1	\$0.0031	67.0	34.2	1.75	126.85			\$8.10	\$0.432624	\$0.09	\$0.006383
6	Salt Lake City, UT	Little Mountain, UT		49.8	\$0.0031	67.0	34.2	1.75	126.85			\$21.56	\$0.432932	\$0.32	\$0.006426
7	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0031	67.0	34.2	1.75	126.85			\$19.05	\$0.432955	\$0.28	\$0.006364
8	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0031	67.0	34.2	1.75	126.85			\$29.83	\$0.432946	\$0.45	\$0.006531
9	Alazon, NV	Weso, NV	SP	182.7	\$0.0031	67.0	34.2	1.75	126.85			\$79.10	\$0.432950	\$1.18	\$0.006459
10	Weso, NV	Stockton, CA	UP	442.2	\$0.0031	67.0	34.2	1.75	126.85			\$191.45	\$0.432949	\$2.86	\$0.006468
11	Provo, UT	Stockton, CA		737.8	\$0.0031	67.0	34.2	1.75	126.85			\$319.43	\$0.432949	\$4.77	\$0.006465
12	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0031	67.0	34.2	1.75	126.85			\$29.83	\$0.432946	\$0.45	\$0.006531
13	Alazon, NV	Weso, NV	SP	182.7	\$0.0031	67.0	34.2	1.75	126.85			\$79.10	\$0.432950	\$1.18	\$0.006459
14	Weso, NV	Richmond, CA	SP	405.9	\$0.0031	67.0	34.2	1.75	126.85			\$175.74	\$0.432964	\$2.62	\$0.006455
15	Richmond, CA	Oakland, CA	SP	8.8	\$0.0031	67.0	34.2	1.75	126.85			\$3.81	\$0.432955	\$0.06	\$0.006818
16	Salt Lake City, UT	Oakland, CA		666.3	\$0.0031	67.0	34.2	1.75	126.85			\$288.48	\$0.432958	\$4.31	\$0.006469
17	Oakland, CA	San Jose, CA	SP	44.3	\$0.0031	67.0	34.2	1.75	126.85			\$19.18	\$0.432957	\$0.29	\$0.006546



REPLICATION OF UP/SP WITNESS  
JOHN H. REBENDORF'S DEVELOPMENT OF  
THE REVENUE-TO-VARIABLE COST RATIOS GENERATED  
BY THE PROPOSED TRACKAGE RIGHTS COMPENSATION FEES

Ln. No.	Item (1)	Source (2)	UP (3)	SP (4)	UP/SP (5)
1	Maintenance of Way Per GTM - Variable	URCS D1L157C10	0.00033871	0.00043185	
2	Constant Markup Ratio	1/ e.	1.7306	1.8979	
3	Maintenance of Way Per GTM - Constant	L1 x L2	0.00058617	0.00091450	
4	Dispatching, etc.	URCS D3L191C25	0.07203	0.08531	
5	Total Direct TM	URCS D3L172C25	0.34322	0.39047	
6	Ratio Dispatching : Total	L4 / L5	0.20887	0.16726	
7	Total TM	URCS D3L191C25	0.46232	0.52755	
8	Dispatching Portion	L6 x L7	0.09703	0.08824	
9	Gross Ton Miles	URCS A1L122C1	512,505,760	239,668,480	
10	Train Miles	URCS A1L104C1	96,753	48,194	
11	GTM Per Train	L9 / L10	5,297	4,973	
12	Dispatching, etc. Per GTM - Variable	L8 / L11	0.00001832	0.00001774	
13	Constant Markup Ratio	2/ e.	1.2489	1.2786	
14	Dispatching, etc. Per GTM - Constant	L12 x L13	0.00002288	0.00002270	
15	Maintenance of Way and Dispatching - Variable	L1 + L12	0.00035703	0.00048859	
16	Maintenance of Way and Dispatching - Constant	L3 + L14	0.00080905	0.0008372	
17	Overhead Mark-Up Ratio	URCS D8L607C1	1.18112	1.12774	
18	Variable Unit Cost Per GTM - OPR	L15 x L17	0.00042170	0.00056341	
19	Constant Unit Cost Per GTM - OPR	L16 x L17	0.00071936	0.00105882	
20	Roadway Depreciation Per GTM	URCS D1L234C10	0.00022393	0.00037117	
21	Overhead Mark-Up Ratio	URCS D8L608C1	1.08309	1.05989	
22	Variable Unit Cost Per GTM - DL	L20 x L21	0.00024478	0.00039340	
23	Constant Markup Ratio	3/ e.	1.9208	1.8376	
24	Constant Unit Cost Per GTM - DL	L22 x L23	0.00047012	0.00072291	
25	Return on Road Property per GTM	URCS D1L251C10	0.00057818	0.00099784	
26	Overhead Mark-Up Ratio	URCS D8L609C1	1.07986	1.03517	
27	Variable Unit Cost Per GTM - ROI	L25 x L26	0.00062441	0.00103273	
28	Constant Markup Ratio	4/ e.	1.9820	1.9889	
29	Constant Unit Cost Per GTM - ROI	L27 x L28	0.00122509	0.00205193	
30	Total Variable Unit Cost Per GTM	L18 + L22 + L27	0.00129089	0.00198954	
31	Total Constant Unit Cost Per GTM	L19 + L24 + L29	0.00241457	0.00383176	
32	Index to 4Q/85	CO4-700007			
33	Total Variable Unit Cost Per GTM - 4Q/85	L30 x L32	0.00134059	0.00206614	
34	Total Constant Unit Cost Per GTM - 4Q/85	L31 x L32	0.00250753	0.00397928	
35	BNSF Trackage Rights Miles	CO4-700005			
36	Percent of Total Miles	L35, Cols.3 & 4 / Col.5	43.52%	56.48%	100.00%
37	Weighted Variable Unit Cost Per GTM	L33 x L36	0.00058342	0.00116896	0.00175038
38	Weighted Constant Unit Cost Per GTM	L34 x L36	0.00109128	0.0022475	0.00333678
39	UP/SP Trackage Right Fee - Bulk	UP/SP Vol.1, p.304			\$0.00300
40	Revenue-to-Variable Cost Ratio	L39 / L37			171.38%
41	Revenue-to-Fully Allocated Cost Ratio	L39 / L38			89.85%
42	UP/SP Trackage Right Fee - Intermodal & Carload	UP/SP Vol.1, p.304			\$0.00310
43	Revenue-to-Variable Cost Ratio	L42 / L37			177.10%
44	Revenue-to-Fully Allocated Cost Ratio	L42 / L38			92.85%
45	UP/SP Trackage Right Fee - K-S/R Intermodal & Carload	UP/SP Vol.1, p.304			\$0.00348
46	Revenue-to-Variable Cost Ratio	L45 / L37			188.81%
	Revenue-to-Fully Allocated Cost Ratio	L45 / L38			104.23%

REPLICATION OF UP / SP WITNESS  
JOHN H. REBENS DORF'S DEVELOPMENT OF  
THE REVENUE-TO-VARIABLE COST RATIOS GENERATED  
BY THE PROPOSED TRACKAGE RIGHTS COMPENSATION FEES

Ln. No.	Item (1)	Source (2)	UP (3)	SP (4)	UP/SP (5)
Footnotes :					
1/	a. Expenses - Regressed	URCS D1L157C2	212,275	141,072	
	b. Expenses - Default	URCS D1L157C3	58,729	56,438	
	c. Expenses - Total	a. + b.	271,004	197,510	
	d. Expenses - Variable	URCS D1L157C5	156,591	104,085	
	e. Expenses - Markup Ratio	c. / d.	1.7306	1.8979	
2/	a. TM - Regressed	URCS D3L191C2	12,185	5,851	
	b. TM - Default	URCS D3L191C3	1,721,814	1,077,161	
	c. TM - Total	a. + b.	1,733,999	1,083,012	
	d. TM - Variable	URCS D3L191C5	1,388,467	846,339	
	e. TM - Markup Ratio	c. / d.	1.2489	1.2798	
3/	a. DL - Regressed	URCS D1L234C2	0	0	
	b. DL - Default	URCS D1L234C3	220,422	163,489	
	c. DL - Total	a. + b.	220,422	163,489	
	d. DL - Variable	URCS D1L234C5	114,785	88,969	
	e. DL - Markup Ratio	c. / d.	1.9206	1.8376	
4/	a. ROI - Regressed	URCS D1L251C2	0	0	
	b. ROI - Default	URCS D1L251C3	581,386	475,063	
	c. ROI - Total	a. + b.	581,386	475,063	
	d. ROI - Variable	URCS D1L251C5	296,318	239,103	
	e. ROI - Markup Ratio	c. / d.	1.9620	1.9889	



**RESTATEMENT OF UP / SP WITNESS  
JOHN H. REBENS DORF'S DEVELOPMENT OF  
THE REVENUE-TO-VARIABLE COST RATIOS GENERATED  
BY THE PROPOSED TRACKAGE RIGHTS COMPENSATION FEES**

Ln. No.	Item (1)	Source (2)	UP (3)
1	Maintenance of Way Per GTM - Variable	URCS D1L157C10	0.00030343
2	Constant Markup Ratio	1/e.	1.6520
3	Maintenance of Way Per GTM - Constant	L1 x L2	0.00050127
4	Dispatching, etc.	URCS D3L169C25	0.07914
5	Total Direct TM	URCS D3L172C25	0.34332
6	Ratio Dispatching : Total	L4 / L5	0.23051
7	Total TM	URCS D3L191C25	0.46248
8	Dispatching Portion	L6 x L7	0.10661
9	Gross Ton Miles	URCS A1L122C1	446,407,056
10	Train Miles	URCS A1L104C1	84,946
11	GTM Per Train	L9 / L10	5,255
12	Dispatching, etc. Per GTM - Variable	L8 / L11	0.00002029
13	Constant Markup Ratio	2/e.	1.2202
14	Dispatching, etc. Per GTM - Constant	L12 x L13	0.00002476
15	Maintenance of Way and Dispatching - Variable	L1 + L12	0.00032372
16	Maintenance of Way and Dispatching - Constant	L3 + L14	0.00052603
17	Overhead Mark-Up Ratio	URCS D8L607C1	1.18158
18	Variable Unit Cost Per GTM - OPR	L15 x L17	0.00038250
19	Constant Unit Cost Per GTM - OPR	L16 x L17	0.00062155
20	Update Ratio to 4Q/95	3/c.	1.0313
	Variable Unit Cost Per GTM - OPR - 4Q/95	L18 x L20	0.00039447
	Constant Unit Cost Per GTM - OPR - 4Q/95	L19 x L20	0.000641
23	Roadway Depreciation Per GTM	URCS D1L234C10	0.00022313
24	Overhead Mark-Up Ratio	URCS D8L608C1	1.09674
25	Variable Unit Cost Per GTM - DL	L23 x L24	0.00024472
26	Constant Markup Ratio	4/e.	1.9518
27	Constant Unit Cost Per GTM - DL	L25 x L26	0.00047764
28	Update Ratio to 4Q/95	3/c.	1.0313
29	Variable Unit Cost Per GTM - DL - 4Q/95	L25 x L28	0.00025238
30	Constant Unit Cost Per GTM - DL - 4Q/95	L27 x L28	0.00049259
31	Return on Road Property per GTM	URCS D1L251C10	0.00062134
32	Overhead Mark-Up Ratio	URCS D8L609C1	1.05816
33	Variable Unit Cost Per GTM - ROI	L31 x L32	0.00065748
34	Constant Markup Ratio	5/e.	1.9618
35	Constant Unit Cost Per GTM - ROI	L33 x L34	0.00128984
36	Update Ratio to 4Q/95	3/d.	1.0000
37	Variable Unit Cost Per GTM - ROI - 4Q/95	L33 x L36	0.00065748
38	Constant Unit Cost Per GTM - ROI - 4Q/95	L35 x L36	0.00128984
39	Total Variable Unit Cost Per GTM - 4Q/95	L21 + L29 + L37	0.00130433
40	Total Constant Unit Cost Per GTM - 4Q/95	L22 + L30 + L38	0.00242343
41	UP/SP Trackage Right Fee - Bulk	UP/SP Vol.1, p.304	\$0.00300
42	Revenue-to-Variable Cost Ratio	L41 / L39	230.00%
43	Revenue-to-Fully Allocated Cost Ratio	L41 / L40	123.79%
44	UP/SP Trackage Right Fee - Intermodal & Carload	UP/SP Vol.1, p.304	\$0.00310
45	Revenue-to-Variable Cost Ratio	L44 / L39	237.67%
46	Revenue-to-Fully Allocated Cost Ratio	L44 / L40	127.92%
47	UP/SP Trackage Right Fee - K-S/R Intermodal & Carload	UP/SP Vol.1, p.304	\$0.00348
48	Revenue-to-Variable Cost Ratio	L47 / L39	266.80%
49	Revenue-to-Fully Allocated Cost Ratio	L47 / L40	143.60%

**RESTATEMENT OF UP/SP WITNESS  
JOHN H. REBENSORF'S DEVELOPMENT OF  
THE REVENUE-TO-VARIABLE COST RATIOS GENERATED  
BY THE PROPOSED TRACKAGE RIGHTS COMPENSATION FEES**

Ln. No.	Item (1)	Source (2)	UP (3)
<b>Footnotes :</b>			
1/	a. Expenses - Regressed	URCS D1L157C2	162,550
	b. Expenses - Default	URCS D1L157C3	39,208
	c. Expenses - Total	a. + b.	201,758
	d. Expenses - Variable	URCS D1L157C5	122,126
	e. Expenses - Markup Ratio	c. / d.	1.6520
2/	a. TM - Regressed	URCS D3L191C2	11,178
	b. TM - Default	URCS D3L191C3	1,497,785
	c. TM - Total	a. + b.	1,508,943
	d. TM - Variable	URCS D3L191C5	1,236,586
	e. TM - Markup Ratio	c. / d.	1.2202
3/	a. Material Prices, Wage Rates & Supp. (excl. fuel) - 4Q/95	AAR RCR, West	276.6
	b. Material Prices, Wage Rates & Supp. (excl. fuel) - 1994	AAR RCR, West	268.2
	c. Update Ratio - MPWRS (excl fuel) 4Q/95	a. / b.	1.0313
	d. Update Ratio for Return on Road	Assumed	1.0000
	a. DL - Regressed	URCS D1L234C2	0
	b. DL - Default	URCS D1L234C3	194,418
	c. DL - Total	a. + b.	194,418
	d. DL - Variable	URCS D1L234C5	99,608
	e. DL - Markup Ratio	c. / d.	1.9518
5/	a. ROI - Regressed	URCS D1L251C2	0
	b. ROI - Default	URCS D1L251C3	544,134
	c. ROI - Total	a. + b.	544,134
	d. ROI - Variable	URCS D1L251C5	277,368
	e. ROI - Markup Ratio	c. / d.	1.9618



**DEVELOPMENT OF EFFECTIVE TRACKAGE RIGHTS COMPENSATION PER  
CARLOAD, CAR-MILE, NET TON AND NET TON-MILE BASED ON THE  
1.75 MILL BULK RATE FOR MOVEMENTS IN THE CENTRAL CORRIDOR**

Ln. No.	From (1)	To (2)	RR (3)	Miles (4)	Trackage Rights Rate Per Ton-Mile	Tons Per Car (6)	Tare Weight (7)	Empty Return (8)	Gross Tons Per Car (9)	Loco. GTM Ratio (10)	Gross Ton-Miles Per Car (11)	Effective Trackage Rights Compensation Per:			
					(5)							(12)	(13)	(14)	(15)
1	Denver, CO	Provo, UT	SP	525.0	\$0.00175	100	30	2.00	160			\$161.85	\$0.308286	\$1.62	\$0.003086
2	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.00175	100	30	2.00	160			\$13.56	\$0.308182	\$0.14	\$0.003182
3	Denver, CO	Salt Lake City, UT		569.0	\$0.00175	100	30	2.00	160			\$175.41	\$0.308278	\$1.75	\$0.003076
4	Salt Lake City, UT	Ogden, UT	UP	35.7	\$0.00175	100	30	2.00	160			\$11.01	\$0.308403	\$0.11	\$0.003081
5	Ogden, UT	Little Mountain, UT	SP	14.1	\$0.00175	100	30	2.00	160			\$4.35	\$0.308511	\$0.04	\$0.002837
6	Salt Lake City, UT	Little Mountain, UT		49.8	\$0.00175	100	30	2.00	160			\$15.35	\$0.308233	\$0.15	\$0.003012
7	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.00175	100	30	2.00	160			\$13.56	\$0.308182	\$0.14	\$0.003182
8	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.00175	100	30	2.00	160			\$21.24	\$0.308273	\$0.21	\$0.003048
9	Alazon, NV	Weso, NV	SP	182.7	\$0.00175	100	30	2.00	160			\$56.32	\$0.308265	\$0.56	\$0.003065
10	Weso, NV	Stockton, CA	UP	442.2	\$0.00175	100	30	2.00	160			\$136.32	\$0.308277	\$1.36	\$0.003076
11	Provo, UT	Stockton, CA		737.8	\$0.00175	100	30	2.00	160			\$227.45	\$0.308281	\$2.27	\$0.003077
12	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.00175	100	30	2.00	160			\$21.24	\$0.308273	\$0.21	\$0.003048
13	Alazon, NV	Weso, NV	SP	182.7	\$0.00175	100	30	2.00	160			\$56.32	\$0.308265	\$0.56	\$0.003065
14	Weso, NV	Richmond, CA	SP	405.9	\$0.00175	100	30	2.00	160			\$125.13	\$0.308278	\$1.25	\$0.003080
15	Richmond, CA	Oakland, CA	SP	8.6	\$0.00175	100	30	2.00	160			\$2.71	\$0.307955	\$0.03	\$0.003409
16	Salt Lake City, UT	Oakland, CA		666.3	\$0.00175	100	30	2.00	160			\$205.41	\$0.308285	\$2.05	\$0.003077
17	Oakland, CA	San Jose, CA	SP	44.3	\$0.00175	100	30	2.00	160			\$13.66	\$0.308352	\$0.14	\$0.003180

**DEVELOPMENT OF EFFECTIVE TRACKAGE RIGHTS COMPENSATION PER  
CARLOAD, CAR-MILE, NET TON AND NET TON-MILE BASED ON THE  
2.0 MILL GENERAL RATE FOR MOVEMENTS IN THE CENTRAL CORRIDOR**

Ln. No.	From (1)	To (2)	RR (3)	Miles (4)	Trackage Rights	Tons	Tare	Empty	Gross	Loco.	Gross	Effective Trackage Rights Compensation Per:			
					Rate Per Ton-Mile (5)	Per Car (6)	Weight (7)	Return (8)	Tons Per Car (9)	GTM Rate (10)	Ton-Miles Per Car (11)	Carload (12)	Car-Mile (13)	Net Ton (14)	Net Ton-Mile (15)
1	Denver, CO	Provo, UT	SP	525.0	\$0.0020	67.0	34.2	1.75	126.85			\$146.64	\$0.279314	\$2.19	\$0.004171
2	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0020	67.0	34.2	1.75	126.85			\$12.29	\$0.279318	\$0.18	\$0.004091
3	Denver, CO	Salt Lake City, UT		569.0	\$0.0020	67.0	34.2	1.75	126.85			\$158.94	\$0.279332	\$2.37	\$0.004165
4	Salt Lake City, UT	Ogden, UT	UP	35.7	\$0.0020	67.0	34.2	1.75	126.85			\$9.97	\$0.279272	\$0.15	\$0.004202
5	Ogden, UT	Little Mountain, UT	SP	14.1	\$0.0020	67.0	34.2	1.75	126.85			\$3.94	\$0.279433	\$0.06	\$0.004255
6	Salt Lake City, UT	Little Mountain, UT		49.8	\$0.0020	67.0	34.2	1.75	126.85			\$13.91	\$0.279317	\$0.21	\$0.004217
7	Provo, UT	Salt Lake City, UT	SP	44.0	\$0.0020	67.0	34.2	1.75	126.85			\$12.29	\$0.279318	\$0.18	\$0.004091
8	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0020	67.0	34.2	1.75	126.85			\$19.25	\$0.279390	\$0.29	\$0.004209
9	Alazon, NV	Weso, NV	SP	182.7	\$0.0020	67.0	34.2	1.75	126.85			\$51.03	\$0.279310	\$0.76	\$0.004160
10	Weso, NV	Stockton, CA	UP	442.2	\$0.0020	67.0	34.2	1.75	126.85			\$123.52	\$0.279331	\$1.84	\$0.004161
11	Provo, UT	Stockton, CA		737.8	\$0.0020	67.0	34.2	1.75	126.85			\$206.09	\$0.279330	\$3.08	\$0.004175
12	Salt Lake City, UT	Alazon, NV	UP	68.9	\$0.0020	67.0	34.2	1.75	126.85			\$19.25	\$0.279390	\$0.29	\$0.004209
13	Alazon, NV	Weso, NV	SP	182.7	\$0.0020	67.0	34.2	1.75	126.85			\$51.03	\$0.279310	\$0.76	\$0.004160
14	Weso, NV	Richmond, CA	SP	406.9	\$0.0020	67.0	34.2	1.75	126.85			\$113.38	\$0.279330	\$1.69	\$0.004164
15	Richmond, CA	Oakland, CA	SP	8.8	\$0.0020	67.0	34.2	1.75	126.85			\$2.46	\$0.279545	\$0.04	\$0.004545
16	Salt Lake City, UT	Oakland, CA		686.3	\$0.0020	67.0	34.2	1.75	126.85			\$186.11	\$0.279319	\$2.78	\$0.004172
17	Oakland, CA	San Jose, CA	SP	44.3	\$0.0020	67.0	34.2	1.75	126.85			\$12.37	\$0.279233	\$0.18	\$0.004063



**ESTIMATED IMPACT OF UP / SP MERGER ON  
CO / NV / UT RAILROAD FREIGHT CHARGES**

<b>Ln. No.</b>	<b>Item (1)</b>	<b>Source (2)</b>	<b>Amount (3)</b>
1	UP - 1994 Total Railway Operating Expenses	AAR	\$4,094,723
2	CNW - 1994 Total Railway Operating Expenses	AAR	\$682,809
3	SP - 1994 Total Railway Operating Expenses	AAR	\$2,718,027
4	UP/SP Total 1994 Total Railway Operating Expenses	L1 + L2 + L3	\$7,495,559
5	Est. UP/SP Current Total Railway Operating Expenses	L4 x 1.0313	\$7,730,170
6	Estimated Economies in Operations	RMA, Vol.1, p.25	\$583,800
7	Est. UP/SP Post-Merger Total Railway Operating Expenses	L5 minus L6	\$7,146,370
8	Post-Merger to Current Total Operating Expenses Ratio	L7 / L5	92.45%
	UP - 1994 Freight Charges for O and/or D Traffic	GWF-2	\$805,590,130
	SP - 1994 Freight Charges for O and/or D Traffic	GWF-2	\$664,358,570
11	UP/SP - 1994 Freight Charges for O and/or D Traffic	L9 + L10	\$1,469,948,700
13	UP - 1994 Variable Cost for O and/or D Traffic	GWF-2	\$514,991,266
14	SP - 1994 Variable Cost for O and/or D Traffic	GWF-2	\$481,181,411
15	UP/SP - 1994 Variable Cost for O and/or D Traffic	L13 + L14	\$996,172,677
16	UP/SP - Current Variable Cost for O and/or D Traffic	L15 x 1.0313	\$1,027,352,882
17	UP/SP - Est. Post-Merger Variable Cost for O and/or D Traffic	L16 x L8	\$949,787,739
18	UP/SP - Post Merger Freight Charges @ RVC = 156.43%	L17 x 1.5643	\$1,485,752,960
19	UP/SP - Post Merger Freight Charges @ RVC = 180.00%	L17 x 1.80	\$1,709,617,930
20	UP/SP - Post Merger Freight Charges @ RVC = 230.00%	L17 x 2.30	\$2,184,511,800
21	UP/SP - Post Merger Freight Charges @ RVC = 250.00%	L17 x 2.50	\$2,374,469,348
22	Potential Increase in CO/NV/UT Freight Charges @ 156.43%	L18 minus L17	\$15,804,260
23	Potential Increase in CO/NV/UT Freight Charges @ 180.00%	L19 minus L17	\$239,669,230
24	Potential Increase in CO/NV/UT Freight Charges @ 230.00%	L20 minus L17	\$714,563,100
	Potential Increase in CO/NV/UT Freight Charges @ 250.00%	L21 minus L17	\$904,520,648

VERIFIED STATEMENT  
OF  
GERALD E. VANINETTI

My name is Gerald E. Vaninetti. I am a Principal of Resource Data International, Inc. ("RDI"), with offices located at 1320 Pearl Street, #300, Boulder, Colorado 80302. I am a specialist in coal and coal transportation market and pricing issues for the domestic utility industry. I have more than 24 years of experience in the coal industry which has included employment with a Western utility (10 years), an international mining consulting firm (4 years), a national coal transportation company (8 years), and RDI since 1993. The bulk of my experience has been obtained in the Western coal industry. My experience pertains not only to the economic and market aspects of this industry, but to certain technical aspects regarding coal exploration, mining, handling, coal quality, and coal combustion.

I have testified on two occasions and have been retained as an expert witness to submit expert testimony for several litigations, arbitrations, and hearings before courts, administrative agencies and arbitration panels. A more detailed description of my experience and background is included in my curriculum vitae attached as Exhibit GEV-1 to this Verified Statement.

I have published several articles and made numerous presentations regarding the coal and coal transportation industries, including many which apply to Western coal. I currently serve on the Transportation Committee for the National Mining Association (formerly the National Coal Association), am on the Board of Directors of the Mississippi Valley Coal Council, and am Vice President of the Western Coal Council. I have served in similar capacities for the Electric Power Research Institute (Coal Quality Committee) and the Lexington Coal Exchange. I currently maintain membership with the Rocky Mountain Coal Mining Institute, the American Institute of Mining Engineers - Society for Mining, Metallurgy and Exploration, and the Denver Coal Club.



I am the lead author of RDI's monthly Marketwatch column in *Coal* and have served as Exploration Editor for the *Journal of Coal Quality*. I am the senior author of two of RDI's recent syndicated studies, *RDI's Coal Transportation Market Study* (1996) and *RDI's Illinois Basin Coal Study* (1994), and was co-author of *RDI's Powder River Basin Study* (1995). In addition, I am the primary author of *Western Bituminous Coal: An Analysis of Coal and Coal Transportation Markets* (1995), a client study which was subsequently released (by the client) to the public in November 1995 (Exhibit GEV-2).

RDI was founded in 1981 and is a database and economic consulting firm that specializes in the economics and markets for coal, coal transportation, and utility power sales. RDI maintains and publishes commercially available databases on electric power generation, fuel purchases, and coal transportation that are widely used within the electric utility and transportation industries, particularly in the areas of market studies, competitive analyses, forecasting, and mergers and acquisitions. These databases include POWERdat\* (which compiles information about electric generation and power sales) and COALdat\* (which compiles information about the procurement and transportation of coal for use in electricity generation and for exports). The information in these databases is derived from public sources, such as reports that electric utilities are required by law to file with federal and state regulatory agencies. RDI also provides expert consulting services to a wide range of clients, including utilities, railroads, coal companies, and financial institutions in the areas of strategic planning, acquisition support, fuel supply and market analysis, contract assessment, transportation analysis, price forecasting and litigation support. RDI's database subscribers and clients include most of the Class I railroads, including Union Pacific ("UP"), Southern Pacific ("SP"), and Burlington Northern Santa Fe ("BNSF").

I have been retained by the Western Shippers' Coalition ("WSC") to assess the impact of the proposed UP/SP merger on competition within the coal industry. As part of my duties in this regard, I was also asked to evaluate the Verified Statement and Deposition of Mr. Richard G. Sharp who testified on behalf of UP regarding the impacts of the proposed UP/SP merger on competition within the coal industry.

My studies are based primarily on my direct experience in the Western coal industry over the past 24 years, my ongoing dialogue with participants in the industry, and my evaluation of coal industry market data. My studies incorporate on-site experience at most of the major coal mining operations and coal loading facilities in the West, more than 100 utility power plants, and several of the coal transloading terminals which serve Western coal. My studies were facilitated by the analysis of information from RDI's POWERdat® and COALdat® databases, supplemented with a review of depositions (including exhibits and work papers) from this proceeding, industry publications, industry surveys, discussions with industry participants, and general industry knowledge. I was assisted in my studies by J. Chris Leshock, RDI Senior Associate, formerly an employee of Commonwealth Edison Company where he held numerous coal transportation management responsibilities (Exhibit GEV - 3).

Based upon my analysis of the industry and of available information, particularly SP's and UP's business plans, I conclude that the proposed UP/SP merger is anti-competitive and is expected to result in competitive harm for current and future shippers of Western coal, the Western high-Btu coal industry, and terminals which handle Western high-Btu coal. I further conclude that the proposed merger would concentrate effective control of Western high-Btu coal shipments in the hands of a carrier (UP) which has been unsuccessful in competing with SP from its Southern Wyoming high-Btu coal origins and which is expected to have little or no incentive for maintaining SP's "aggressive pricing policy." I also conclude that the proposed merger is focused not only on the UP's elimination of a viable competitor, but the elimination of competition for its primary low-Btu coal origins in the Powder River Basin ("PRB") coal industry - since such competition "caps" increases in PRB rail rates which might otherwise be available. Further, I do not consider UP's trackage rights agreements with BNSF and Utah Railroad as mechanisms for providing meaningful competition for Western coal shipments. Finally, I conclude that UP's sole witness concerning the competitive effects of the proposed UP/SP merger on the Western coal industry has not demonstrated the background and study methods required to make such an assessment and consequently, his contention that the proposed merger is pro-competitive should not be considered. My specific findings may be summarized as follows:



- The limited source options available to SP for coal originations has caused it to aggressively and successfully compete against coals originated by other railroads - particularly coals originated by UP, including PRB coals.
  - The merger would place effective control of high-Btu Western coal in the hands of UP which is perceived as having a disinterest in continuing SP's "aggressive pricing policy"
  - High-Btu Western coal complements and competes with PRB coal at plants designed for high-Btu coal in emerging east-bound markets. Although PRB coal has secured three-quarters of these new market opportunities, the annual rate of growth in these new markets has been comparable for both types of coal.
  - Competition between SP from its Western high-Btu coal origins and PRB railroads effectively "caps" increases in PRB rail rates which may otherwise be available to UP and BNSF.
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- I have documented 16 different instances in which SP has prevailed in competition with UP in markets for Western coal (both high-Btu and PRB coal) at plants with indifferent delivery options – these situations involve the vast majority of new markets which have been secured by Western high-Btu coal in recent years.

- The methods used by UP's sole witness for assessing the competitive effects of the proposed UP/SP merger on the coal industry are not consistent with industry methods nor do they incorporate the information which is integral in making such an assessment. As a consequence, his conclusion that the merger would be "pro-competitive" should not be considered.

My testimony is organized as follows: Part I provides an overview of the Western coal industry and the proposed UP/SP merger. Part II is my assessment of the anti-competitive impacts of the proposed UP/SP merger on the Western coal industry and a documentation of competition between Western high-Btu coal and PRB coal. Part III is an analysis of SP's aggressive pricing policy as it relates to competition with UP for markets for Western coal. Part IV is a critique of the testimony of UP's witness regarding the competitive effects of the proposed UP/SP merger on the Western coal industry.



# I. Overview of the Western Coal Industry, Coal Supply Economics, and the Proposed UP/SP Merger

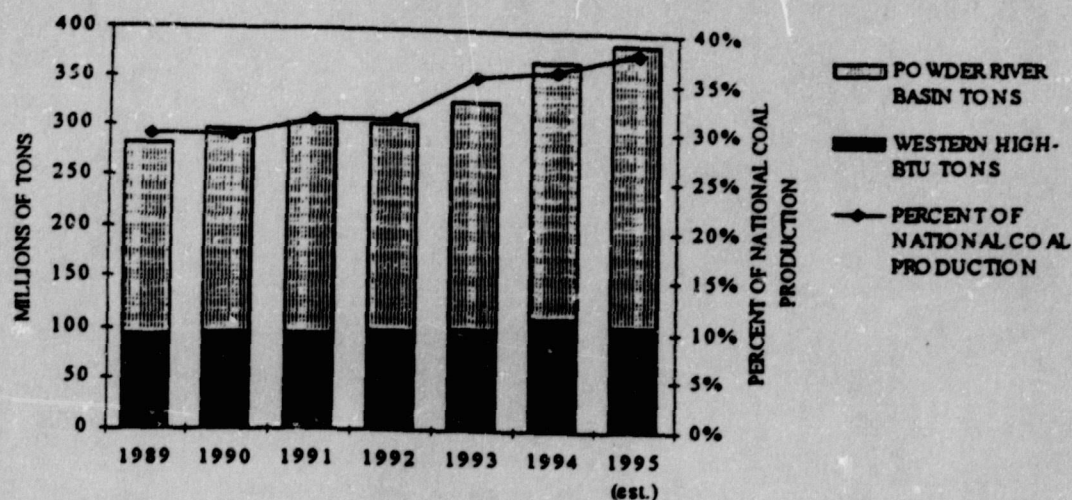
The concerns of the Western coal industry regarding the proposed UP/SP merger are centered on the "Central Corridor" -- SP trackage which accesses the *high-Btu coal* fields of Utah and Colorado, as shown in Figure 1 (Exhibit GEV - 7). The proposed UP/SP merger contemplates the merger of carriers that directly compete with one another for coal traffic, sometimes in parallel or overlapping track configurations (reference Exhibit GEV - 4). Such competition has been integral in stimulating demand for Western high-Btu coal -- with SP originations securing most of the business. However, these competitive concerns extend to the entire Western coal industry, since Western high-Btu coal both competes with, and complements, Western *low-Btu coal* from the PRB.

The Western coal industry is a \$9 billion per year business, with about half of this amount expended in coal transportation services. The industry is comprised of (1) coal mines clustered within the Rocky Mountain states, (2) the customers which utilize Western coal for power generation requirements, and (3) the transportation and handling required to deliver Western coal to coal consumers. The interplay of these three components effectively determines the marketplace for Western coal. In recent years, this marketplace has expanded from a regional to a national basis, due primarily to increased demands for low sulfur coal and competition between Western railroads. The focus of market expansion has been in "east-bound" domestic utility markets, although growth has also occurred in "west-bound" and export markets.

## Coal Supply Overview

The demand for low-sulfur Western coal has grown considerably in recent years and now accounts for about 38% of the coal mined in the U.S. (Figure 2). Although most Western coal is mined in the PRB coal field, about 30% of Western coal production involves high-Btu coal mined in the states of Colorado, Utah, Wyoming, New Mexico, and Arizona. Annual revenues for coal and transportation from these fields is approximately \$6 billion and \$3 billion, respectively. The specifics of the Western high-Btu coal industry and the PRB coal industry are summarized in Attachment s GEV - 2 and 5, respectively.

FIGURE 2  
WESTERN COAL PRODUCTION AND MARKET SHARES

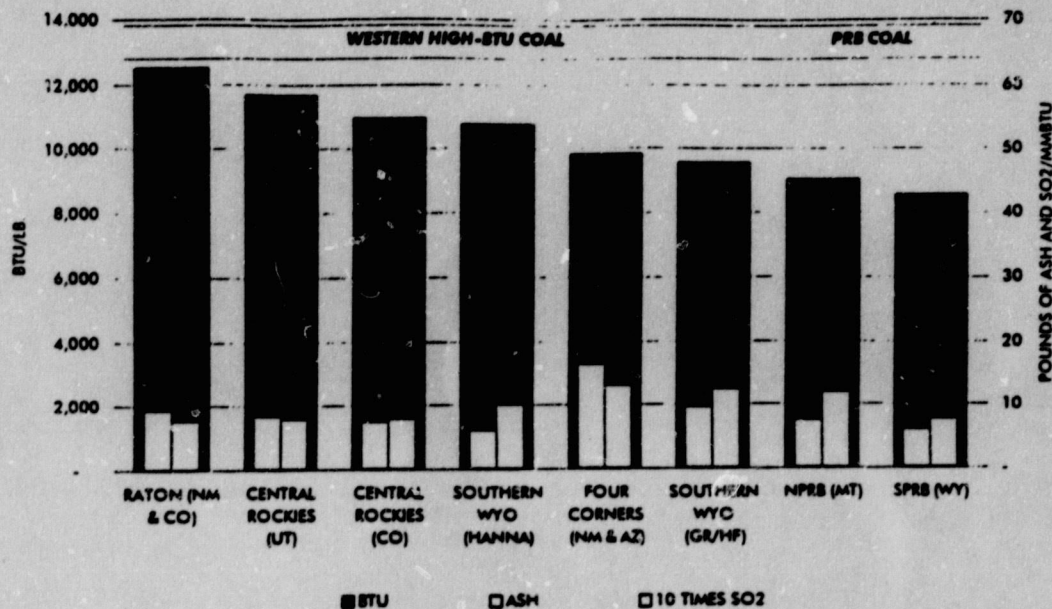


The value of Western coal varies between coal types and largely reflects differences in mining techniques and coal qualities. PRB coal is mined exclusively by surface mining methods and commands an open-market value with ranges from \$3.50 to \$6.50 per ton. Western high-Btu coal is mined by both surface and underground techniques and ranges in value from \$11.00 to \$16.00 per ton, although considerable variations between coal fields and coal qualities are evident.

Both low-Btu and high-Btu coals have experienced demand growth in recent years, particularly in Midwestern markets. The heating value of low-Btu PRB coal ranges from 8,000 to 9,500 Btu/lb. while Western high-Btu coal typically ranges from 10,000 to 12,000 Btu/lb. (Figure 3). The availability and quality of Western high-Btu coal varies between coal field: high quality coal supplies from the Raton/Canon City coal field are very limited, intermediate quality coal from Colorado and Wyoming generally competes for east-bound markets, high quality coal from Utah generally serves west-bound and export markets, and the inferior quality coal from the Four Corners region is primarily consumed at local and regional power plants.



FIGURE 3  
WESTERN COAL QUALITY, 1995



### Utilities Overview

The marketplace for coal consists primarily of 411 domestic coal-fired utility power plants, although industrial and export markets are also important.<sup>1</sup> Approximately 56% of the electricity produced in the U.S. is generated at these plants. Coal purchases by these 411 power plants exceeded 827 million tons in 1994, as contrasted with 1.023 billion tons mined in the U.S. in 1994. Therefore, the average power plant purchased approximately 2 million tons in 1994, although the range is considerable. The coal purchases and distribution of these plants is summarized consistent with the geographic regions defined by the National Electric Reliability Council ("NERC") as shown in Figures 4 and 5. More than 95% of Western coal is purchased by utilities.

<sup>1</sup> Information concerning coal purchases is reported to FERC by utilities for the 411 coal-fired power plants which exceed 50 MW in generating capacity

FIGURE 4  
NERC REGIONS

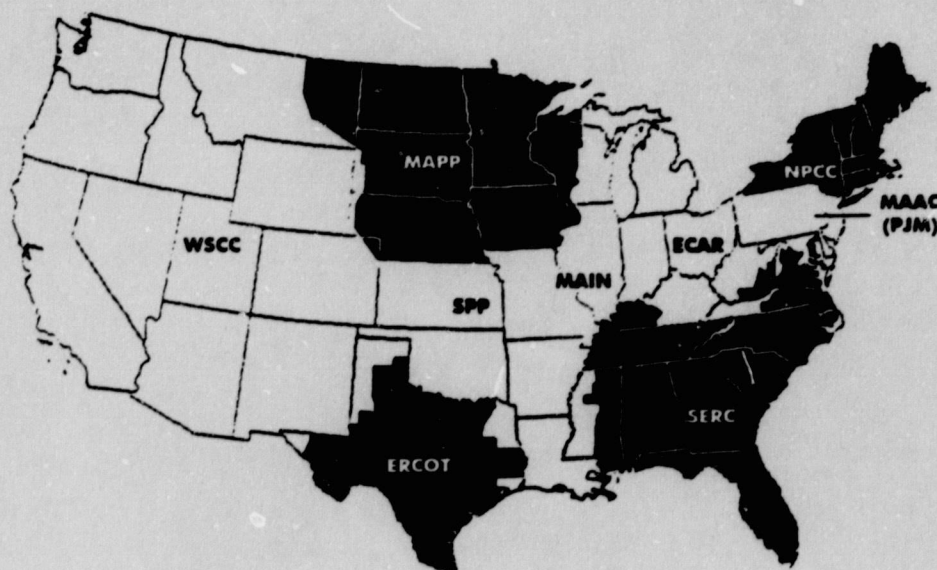


FIGURE 5  
LOCATION AND COAL PURCHASES FOR MAJOR U.S. UTILITY POWER PLANTS, 1995

NERC REGION	NO. OF PLANTS	SOURCE OF 1995 COAL (000 TONS)						GRAND TOTALS
		EAST	LIGNITE	MIDWEST	OTHER	POWDER RIVER BASIN	WESTERN HIGH-BTU	
WSCC	40	-	-	-	4,650	29,332	73,279	107,261
MAIN	46	2,365	-	17,310	-	42,267	6,101	68,043
SERC	78	105,461	-	35,130	3,462	10,956	5,036	160,045
SPP	37	-	7,031	1,201	-	89,114	2,961	100,307
ERCOT	14	-	43,102	-	-	24,415	1,794	69,311
ECAR	105	117,632	-	40,572	-	33,144	1,251	192,598
MAPP	43	8	23,881	1,595	-	45,143	1,044	71,671
MAAC	29	40,162	-	-	7	-	9	40,178
NPCC	19	11,862	-	-	1,786	-	-	13,648
GRAND TOTALS	411	277,490	74,014	95,808	9,906	274,370	91,474	823,061

Most U.S. coal-fired utility plants were constructed prior to and during the energy crises of the late 1970's and early 1980's. These plants were designed to accommodate a specific coal type or quality which at the time of design and construction, offered the most competitive fuel supply economics. As a consequence, power plants are designed for a narrow range of coals which are to be found in close proximity to these power plants. Therefore, effectively all plants in the East and Midwest are designed for high-Btu coal from Eastern and Midwestern mines, respectively; power plants in North Dakota and



several in the states of Texas and Louisiana are designed to burn very low-Btu lignite from local sources; and power plants in the West are designed either for Western high-Btu coal or low-Btu PRB coal. However, plants designed for PRB coal are more widely scattered and are primarily located at sites on the western side of the Mississippi River.

Changes in fuel supply economics and air quality regulations since the date of construction of most utility power plants have caused a shift from the local or regional coals that these plants were designed to burn to coals from more remote coal source regions -- particularly the West. As a consequence, markets for Western coals have expanded (Figures 6 and 7) -- particularly in the MAIN, ECAR, and SERC regions -- corresponding to the displacement of Eastern and Midwestern coals from their traditional markets.<sup>2</sup> This shift has been progressive but was accelerated in the past few years by two factors: (1) coal supply/demand imbalances resulting from the UMWA strike in 1993 and early 1994 and (2) the implementation of Phase I CAAA compliance in 1995. As a consequence, Western coal production has expanded by about 100 million tons since 1989 and its market share of total U.S. coal production has increased from 28% to 38% (Figure 2). This expansion is reflected in a time-series analysis of the number of plants using Western coal (Figure 8).

---

<sup>2</sup> The demand for Western high-Btu coal by traditional customers within the WSCC was significantly curtailed in 1995 due to the temporary availability of large quantities of cheap hydroelectric power, which tends to diminish the perception of growth which has been experienced in new markets

FIGURE 6  
UTILITY PURCHASES OF PRB COAL- BY NERC REGION, 1989-1995

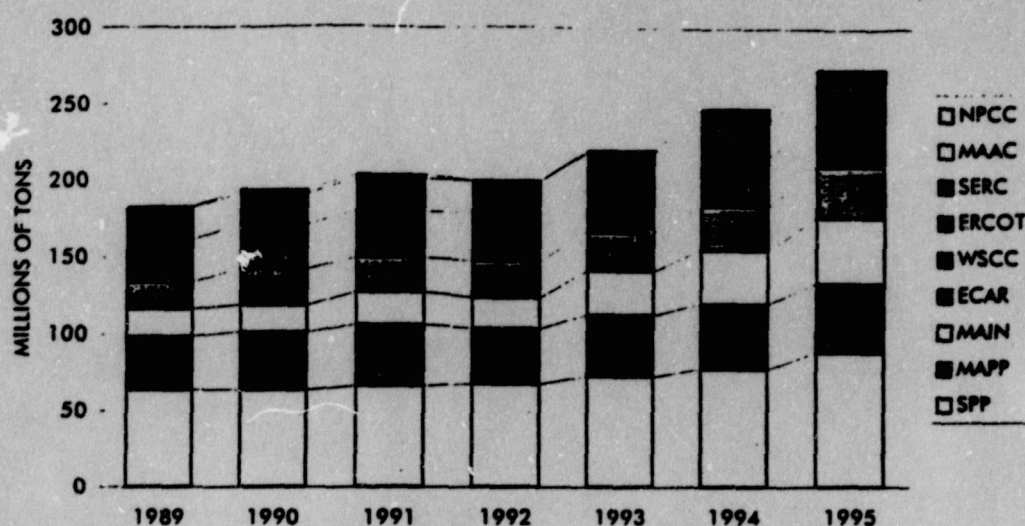


FIGURE 7  
UTILITY PURCHASES OF WESTERN HIGH-BTU COAL- BY NERC REGION, 1989-1995

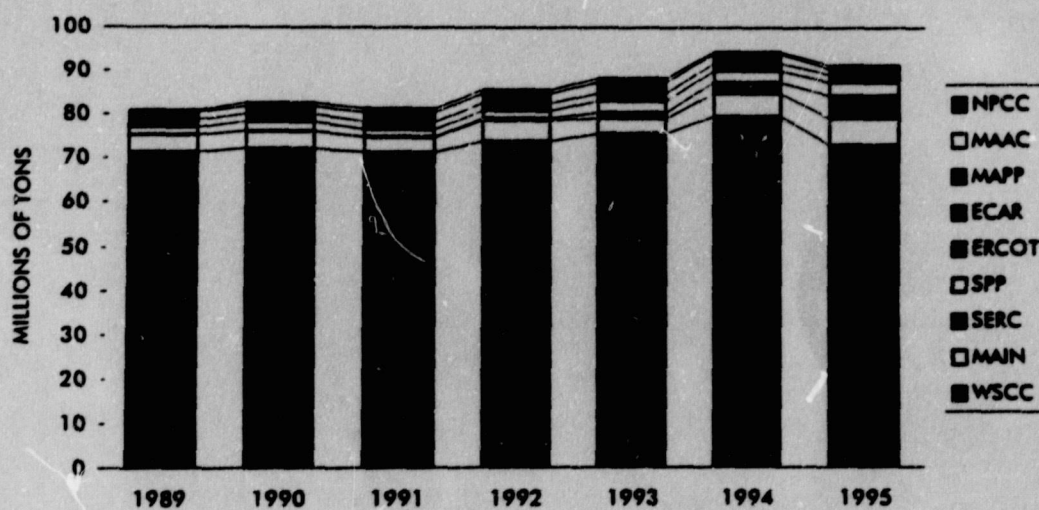
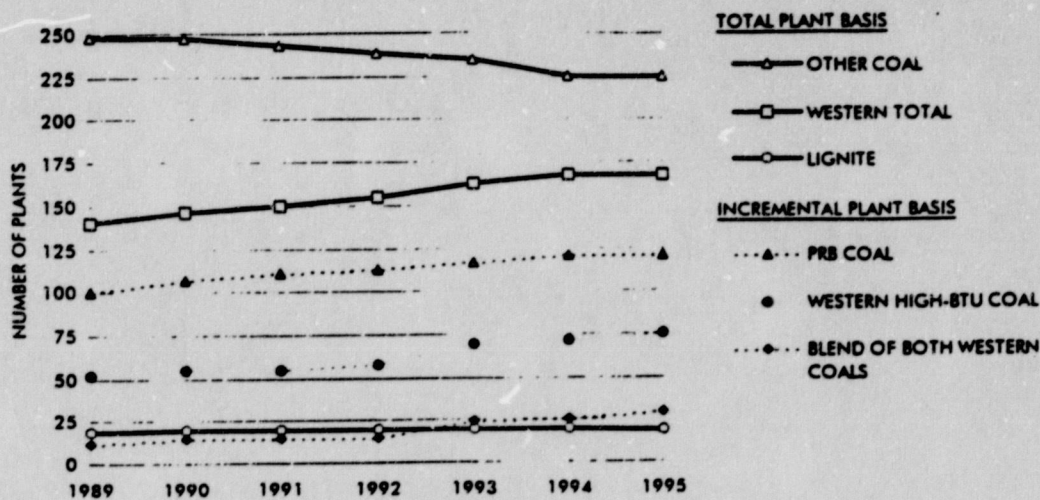




FIGURE 8  
COAL SOURCES FOR UTILITY PLANTS, 1989-1995



In recent years, markets for Western coal have expanded to include plants throughout much of the U.S., including plants in the Midwest, Southeast, and along the Inland Waterways and Great Lakes. Western coal now is regularly shipped to utility customers as far away as Michigan, Indiana, Florida, and Georgia and exported to Spain and the Pacific Rim. Western low-Btu and high-Btu coals, facilitated by changes in fuel supply economics resulting from Phase I CAAA compliance, now compete directly with Eastern and Midwestern coals at many locations and have displaced such coals at several power plants. Additional changes in fuel supply economics resulting from increases in the "sulfur penalty" imposed by CAAA compliance are expected to cause further displacements and further expansions in markets for Western coal.

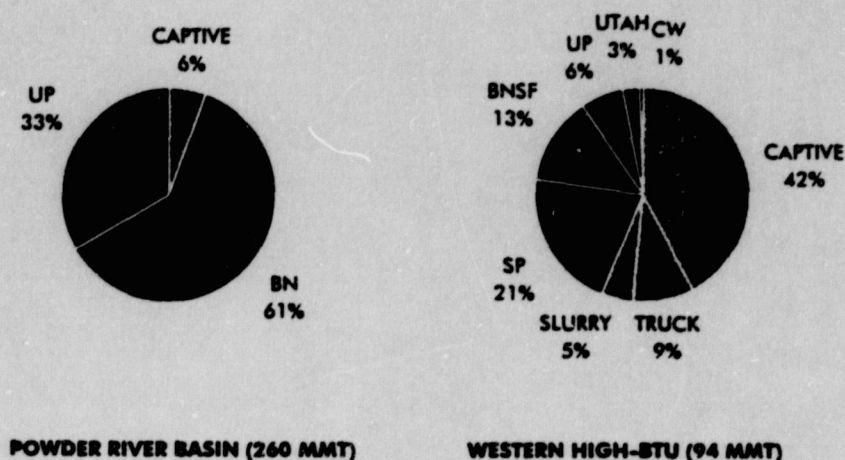
#### Coal Transportation Overview

The transportation of Western coal is dominated by railroads -- particularly in the case of PRB coal originations which are controlled by UP and BNSF (Figure 9). PRB coal is routinely transported by rail and rail-to-water methods to plants located more than 1,500 miles from the PRB, with many new markets located more than 2,000 miles away. Although BNSF dominates PRB originations, UP and BNSF maintain comparable market shares of originations from mines located on "Joint Line" trackage in the Southern PRB. Transportation for Western high-Btu coal has traditionally been to mine-mouth and regional power plants. However, recent market expansions for this coal are exclusively

focused on rail and rail-to-water hauls to remotely sited plants, most of which are located in the Midwest. SP maintains the largest market share of Western high-Btu rail originations.

FIGURE 9

**ORIGINATION MARKET SHARES FOR UTILITY SHIPMENTS OF WESTERN COAL, 1994**

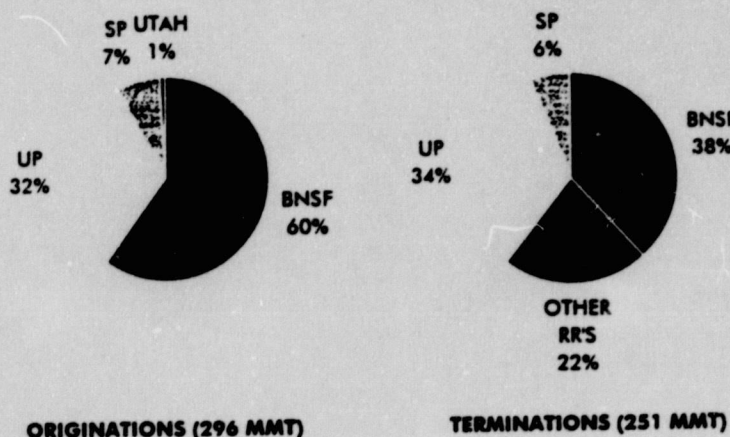


Transportation costs typically comprise more than 50% of delivered coal costs for Western high-Btu coal and more than 70% of delivered coal costs for PRB coal. These relationships indicate that transportation costs will largely dictate fuel sourcing decisions, particularly for emerging markets for Western coal which are expected to involve even higher proportions of transportation costs relative to delivered coal costs. Therefore, rail competition, or the absence of rail competition, has the potential for profoundly influencing such decisions.

Rail transportation for Western coal to utilities is dominated by UP and BNSF, in terms of originated tons and terminated tons (Figure 10). Although SP maintains only a small market share of total Western coal shipments, in recent years it has been an effective competitor to UP and BNSF, as well as a terminating carrier for coal originated by other carriers. The relationship of originated tons to terminated tons shown in Figure 10 suggests that UP is substantially less involved in interline movements of coal than BNSF and that SP's originations and terminations are comparable.



FIGURE 10  
WESTERN RAIL MARKET SHARES, 1994



### Overview of Fuel Supply Economics

The expansion of the Western coal industry is largely a result of competition between Western railroads due to the high proportion of transportation costs relative to delivered coal prices.<sup>3</sup> The decline in rail rates resulting from railroad competition has profoundly improved fuel supply economics for Western coal in markets traditionally supplied by coals mined from regional or local coal fields. However, the recent implementation of Phase I CAAA has also been important in facilitating the expansion of the Western coal industry.

The fuel supply evaluation process that ultimately dictates the competitiveness of a given coal at a given power plant is focused on plant design, coal handling, load profile, operational, delivered coal cost, waste disposal, and CAAA compliance factors unique to each utility and power plant, although other factors are also important. The process is directed at an assessment of power production costs for each coal under consideration and is commonly referred to as a "bus-bar evaluation." The initial step of the process involves an assessment of delivered coal prices on an equivalent heating value basis.<sup>4</sup> Subsequent steps include an assessment of plant operating issues and the value of the "sulfur penalty" pertaining to each of the competing coals.

<sup>3</sup> Coal quality and FOB mine price play important, but subsidiary, roles in fuel supply economics for Western coal in emerging markets for this coal

<sup>4</sup> Coal costs in \$/ton are converted to ¢/mmBtu

In the case of the evaluation of Western coals at typical Midwestern power plants<sup>6</sup> these two factors are very important. First, the delivered price for PRB coal must be priced as much as 20¢/mmBtu lower relative to a high-Btu coal to defray the cost of operating inefficiencies resulting from using a low-Btu coal in a plant designed for high-Btu coal<sup>6</sup> ("deratings") and/or plant modifications required to successfully burn low-Btu coal ("retrofits").<sup>7</sup> Second, the implementation of Phase I CAAA in 1995 dictates that a value be assigned to the differential in sulfur contents for competing coals -- the value of this "sulfur penalty" currently approaches 13¢/mmBtu for the differential in sulfur content between high-sulfur Midwestern coal and low-sulfur Western coal.<sup>8</sup>

Therefore, in order for PRB coal to be competitive with a high-sulfur Midwestern coal, its delivered price would have to be 7¢/mmBtu lower than that coal (i.e., 20¢ - 13¢ = 7¢). In the case of Western high-Btu coal, it would be able to command a 13¢/mmBtu premium relative to Midwestern coal. Alternatively, PRB coal would have to be priced 20¢/mmBtu less than the delivered price for Western high-Btu coal to offset its "retrofit/derate" penalty (i.e., Western high-Btu coal would justify a 20¢/mmBtu delivered price premium relative to PRB coal). The application of these "adjustments" to delivered coal prices helps to explain fuel purchasing decisions in which a premium is paid for low-sulfur, high-Btu coal.

These economic relationships are demonstrated for a typical, but hypothetical, power plant in Illinois (Figure 11). In this example, the delivered price of PRB coal is substantially lower than for competing coals, including local Midwestern coal (which offers the next lowest delivered coal price). However, the assignment of a conservative "retrofit/derate" penalty of 10¢/mmBtu narrows the apparent delivered price advantage for PRB coal. The imposition of a "sulfur penalty" coinciding with the implementation of Phase I CAAA compliance in 1995 significantly improves the competitive position of low-sulfur coals relative to the high-sulfur Midwestern coal. This indicates that while PRB coal offers the lowest evaluated cost, Western high-Btu coal has supplanted Midwestern coal as

<sup>6</sup> The typical scenario pertains to an unscrubbed power plant designed for high-Btu coal

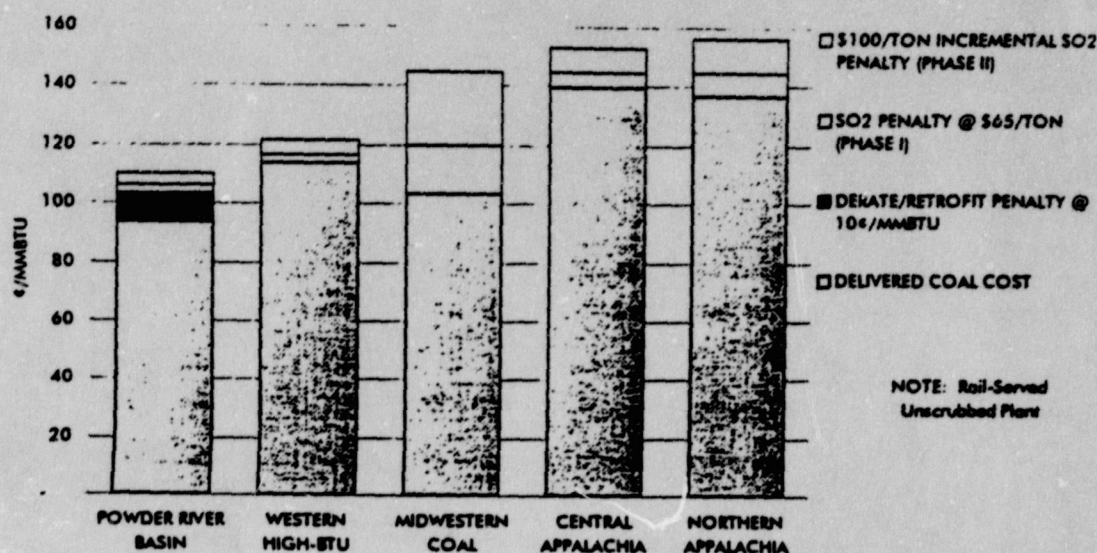
<sup>6</sup> Presuming that the lost generating capacity has value to the utility.

Acid Rain Compliance Strategies for the Clean Air Act Amendments of 1990 - DOE/EIA-0582  
The methodology for this calculation is presented in Exhibit GEV - 6.



coal as the primary competitor for PRB coal in this market. In other words, Western high-Btu coal now serves as a "cap" on delivered prices for PRB coal, since it is the next most economic fuel source.

FIGURE 11  
HYPOTHETICAL COAL SUPPLY EVALUATION FOR AN ILLINOIS POWER PLANT



Expected increases in the value of the "sulfur penalty" resulting from Phase II CAAA compliance in 2000 will further enhance the competitiveness of Western low-sulfur coal in select markets – and further restrict competition in these markets to PRB coal and Western high-Btu coal. This relationship is demonstrated in Figure 11 by the "incremental sulfur penalty" which suggests that the market would bear significant price increases for PRB coal in these markets, were it not for competition with Western high-Btu coal.

(Exhibit GEV - 8).<sup>9</sup>

#### Overview of the Proposed UP/SP Merger

The proposed UP/SP merger would consolidate the originations of Western high-Btu coal by UP (Southern Wyoming and Utah) with those of SP (Colorado and Utah), as

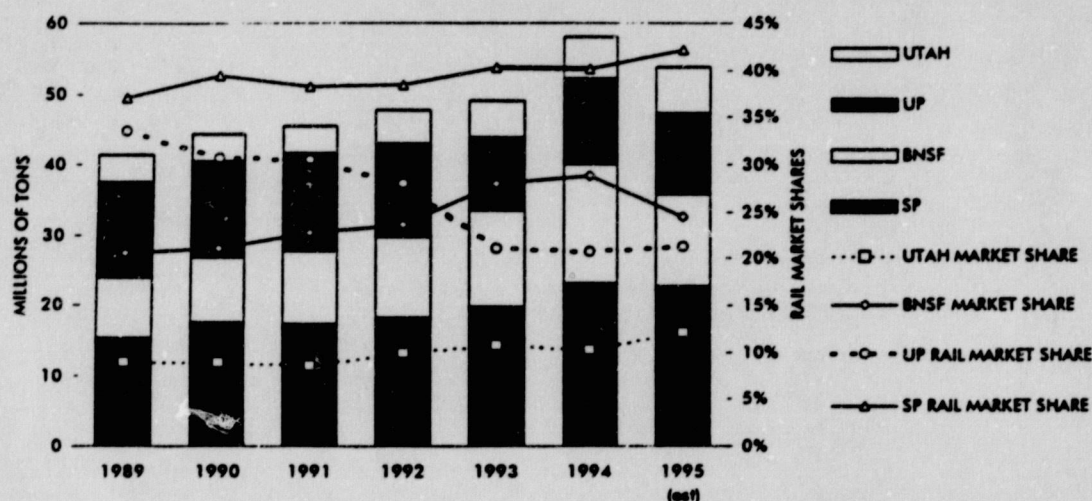
<sup>9</sup> Exhibit GEV - 8 includes all references to unredacted copies of the UP and SP Coal Business Plans

well as UP's originations of PRB coal. Such consolidation would put two-thirds of all rail originations involving Western high-Btu coal in the hands of UP (Figure 12).<sup>10</sup> In addition, access to certain termination points by each carrier would be consolidated, including at least six instances where both carriers currently serve or may have the potential to serve coal shippers.<sup>11</sup> Other 2 to 1 terminations are undoubtedly present and include export shipments through Long Beach and Los Angeles, California, and situations which would involve build-outs to various utility power plants and industrial coal-burning facilities.<sup>12</sup>

FIGURE 12

**RAIL ORIENTATION MARKET SHARES FOR WESTERN HIGH-BTU COAL, 1989-1995**

(FROM WESTERN BITUMINOUS COAL STUDY - APPENDIX GEV-2)



I understand that the proposed merger contemplates the granting of trackage rights to BNSF through the Central Corridor – although such rights would not extend to any coal originations – and access to certain “2 to 1” coal termination points. I further understand that the proposed merger would provide Utah Railway with access to two origination points in Utah which were formerly served exclusively by SP,<sup>12</sup> as well as trackage rights to Grand Junction, Colorado. I am not aware that these two agreements address the competition afforded by alternately trucking coal to rail loadouts served by

<sup>10</sup> The effective market share control for new markets would be much greater, since Utah Railway must interconnect with UP and SP to access markets and mines served by BNSF are largely unsuited for market expansions

<sup>11</sup> Union Electric-Labadie, LCRA-Fayette, San Antonio-Deely, San Antonio-Spruce, Sierra Pacific-North Valmy, and Geneva Steel

<sup>12</sup> AP&L-White Bluff, Associated Electric-New Madrid, and PSCO-Cherokee



SP, UP, and Utah Railway -- a practice which has been an integral part of the Utah coal industry for many years.<sup>14</sup>

I understand that UP's application for the proposed UP/SP merger included letters of support by 1,300 shippers but that only one letter of support was submitted by a utility coal shipper: Grand River Dam Authority in Oklahoma.<sup>15</sup> As of this writing, I am not aware of the submittal of letters of support for any of the remaining utilities which, in 1995, shipped Western high-Btu coal to 75 power plants and PRB coal to 121 power plants. In addition, I am not aware of letters of support submitted by any producers of Western high-Btu coal nor either of the two terminals active in the rail-to-barge transloading business involving this coal.<sup>16</sup>

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<sup>13</sup> Savage Terminal (an independent rail loading/tolling terminal) and Castlegate Loadout (for Cyprus Amax's proposed Willow Creek Mine)

<sup>14</sup> Coastal Coal, Consolidation Coal, Genwal Coal, Andalex Resources, C.W. Mining, and Kaiser Coal have all availed themselves of this strategic option

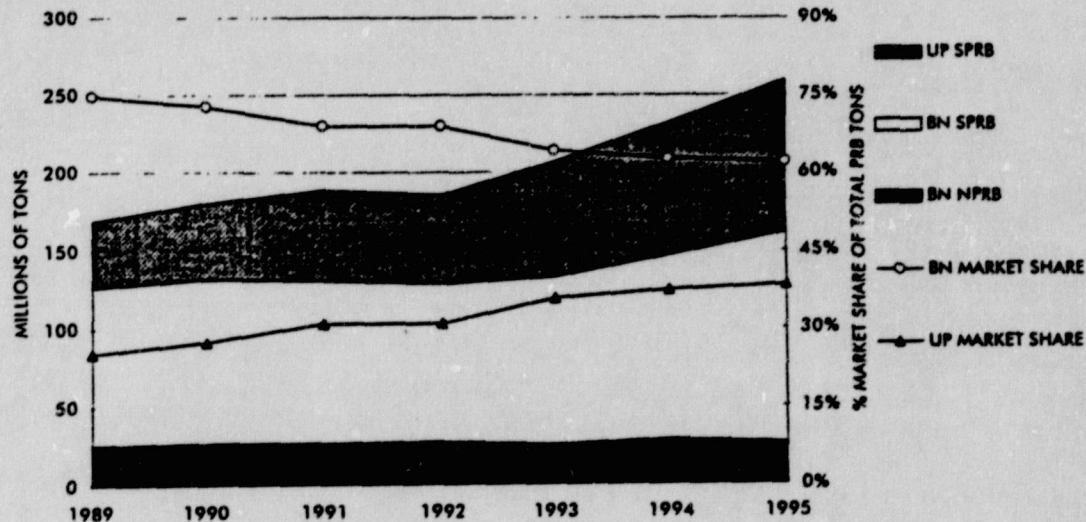
<sup>15</sup> GRDA's sole coal-fired power plant east of Tulsa, Oklahoma, is exclusively served by UP

<sup>16</sup> Koch Industries' KCBX Terminal in South Chicago and Slay Industries Cahokia Terminal in East St. Louis

II. The Elimination of SP as a Viable Competitor to BNSF and UP which would be Afforded by the Proposed Merger is Expected to Limit Competition between PRB and Western High-Btu Coal to the Competitive Harm of Shippers

A high level of competition between Western railroads is evident within and between the PRB and Western high-Btu coal industries. In the PRB, the entry of CNW (now merged with UP) in 1984 intensified competition for originations of Southern PRB coal and caused unprecedented growth in that industry. However, the same degree of competition in the Northern PRB is not evident, since only BNSF originates coal from that region. The differences in railroad competition (and traffic density) for the two portions of the PRB are reflected in the market shares for PRB coal originations as well as in RDI's estimates of rail rates<sup>17</sup> (Figures 13 and 14, respectively). The close match of rail pricing trends for BNSF and UP for Southern PRB shipments is indicative of the degree of competition that has been experienced between these two railroads.<sup>18</sup>

FIGURE 13  
RAIL ORIENTATION MARKET SHARES FOR PRB COAL, 1989-1995

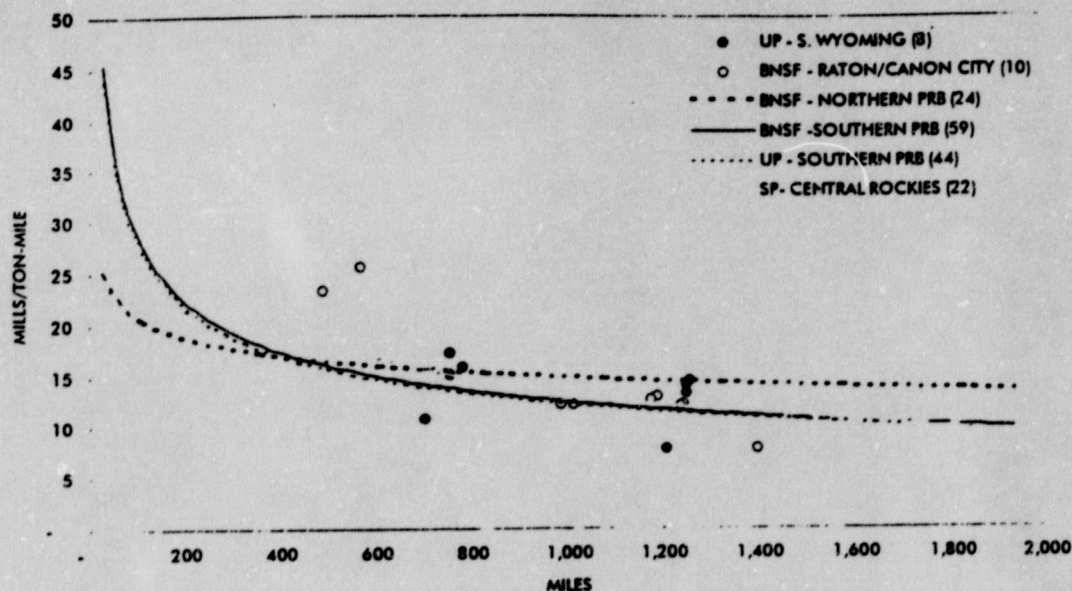


<sup>17</sup> RDI's estimates of transportation rates are included in its COALdat Transportation Database Module with is provided to RDI database subscribers; these estimates are based on ICC Public Use Waybill Tapes as well as numerous other sources of information

<sup>18</sup> Rail pricing trend lines have been established by a regression analysis curve fit of the applicable population of estimated rail rates for utility shipments of Western coal



FIGURE 14  
RAIL PRICING TRENDS FOR WESTERN COAL SHIPMENTS, 1994



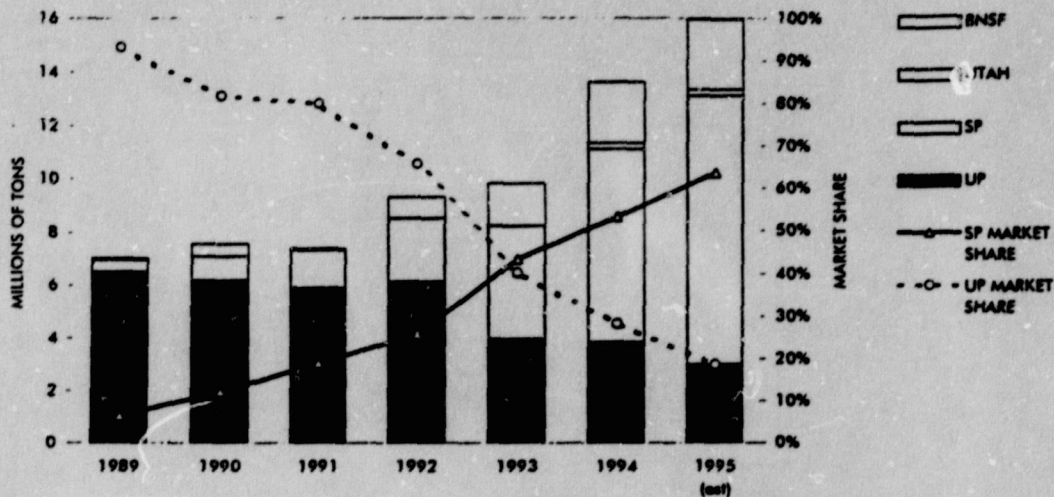
NOTE: East-Bound Shipments of > 100,000 Tons in Shipper-Owned Cars

Railroad competition has been a critical, if not the most important element in the expansion of the Western high-Btu coal industry, although such competition must be assessed between coal fields rather than within each coal field. This is because each of these coal fields, with the exceptions of a small portion of the Central Rockies coal field in Utah and the Colorado portion of the Raton/Canon City coal field, is served exclusively by a single rail carrier: BNSF (formerly ATSF) for Raton/Canon City and Four Corners coal, UP for Southern Wyoming coal, and SP for Central Rockies coal.

Rail originations of Western high-Btu coal are dominated by SP, which has steadily increased its market share (Figure 12). BNSF's market share has declined since the merger of BN with ATSF due to mine closures in the Raton/Canon City coal field and reduced coal burns at plants using coal from the Four Corners coal field.<sup>20</sup> UP's market share of Western high-Btu coal originations has consistently declined coincident with the increase of its PRB market share (compare Figures 12 and 13, respectively). Utah

Railway's originations are limited and are all interchanged with SP and UP. The relationship of rail market shares for new and changing markets for Western high-Btu coal indicate that SP has been unusually successful in competition with UP for these markets and to some extent, at the expense of UP (Figure 15).

FIGURE 15  
**NEW AND CHANGING MARKETS FOR WESTERN HIGH-BTU COAL**  
(FROM WESTERN BITUMINOUS COAL STUDY - APPENDIX GEV-2)



SP has prevailed in the majority of new market opportunities for Western high-Btu coal as a result of its widely-reported aggressive pricing policies and its sole focus on originations of such coal (i.e., SP does not have access to other coal fields). UP and BNSF, on the other hand, have not been nearly as aggressive in competing for new markets for Western high-Btu coal as SP, and both have suffered market share declines. However,

In addition, to the extent that Western high-Btu coal competes with PRB coal, it would be logical to expect that PRB railroads

<sup>20</sup> Due to the previously mentioned displacement of coal-fired generation by hydro-electric facilities in 1995



would favor their PRB origins, particularly when 35% more PRB coal must be transported to deliver an equivalent amount of Btu's.<sup>22</sup> The reluctance of PRB railroads to offer similar pricing for shipments of "enhanced PRB coal" may be further evidence of this relationship.<sup>23</sup>

Rail rate relationships for east-bound shipments of Western high-Btu coal are difficult to establish other than for SP, as only a limited number of shipments on the other carriers are available to evaluate (Figure 14). RDI's estimates of rail rates suggest that SP's short-haul rates are higher than PRB rates (undoubtedly reflecting unusually difficult operating conditions prevalent in mountainous terrain), but that its long-haul rates are comparable to Southern PRB rates. However, RDI's estimates of BNSF and UP rail rates for shipments of Western high-Btu coal are commonly higher than SP and PRB rates for comparable distances.<sup>24</sup> The unusually competitive nature of SP's rail rates is underscored by the inferiority of its operating conditions found within the mountainous terrain of the Rocky Mountains, as compared to other railroad's operating conditions in serving the PRB, Southern Wyoming, Raton/Canon City, and Four Corners coal fields. Despite these obstacles, SP has offered pricing consistent with and competitive to PRB rail rates.

Western high-Btu coal and PRB coal directly compete with one another in several markets with such competition primarily afforded by widespread competition between SP, UP, and BNSF.

<sup>25</sup> as well as in its Form 10-K report for 1994.<sup>27</sup> The effect of such competition has been the continued expansion of

<sup>22</sup> For instance, a plant annually burning 1.0 million tons of 11,500 Btu/lb. Western high-Btu coal would need to consume more than 1.35 million tons of 8,500 Btu/lb. PRB coal to generate an equivalent amount of electricity

<sup>23</sup> Developers of "enhanced PRB coal" projects have identified such concerns which have been addressed in RDI's proprietary studies; such concerns have also been reported in the trade press

<sup>24</sup> An exception to this statement is UP's rate for shipments of high-Btu coal from Southern Wyoming to Sierra Pacific-North Valmy, a plant which is jointly served by SP and UP

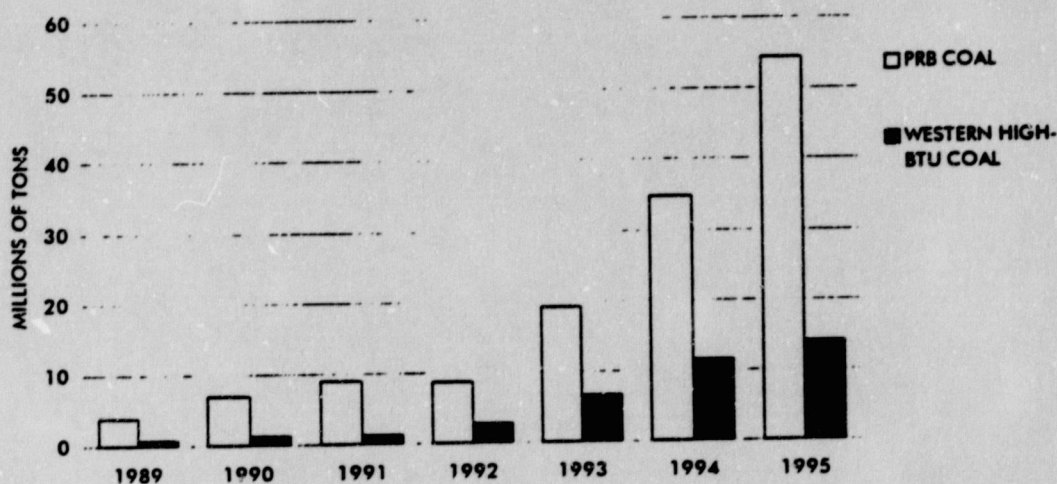
<sup>25</sup> SP 1996 Business Plan - HC65 - 100203, 100223, and 100241

<sup>26</sup> SP 1996 Business Plan - HC65-100201

<sup>27</sup> "The [coal] traffic is subject to intense competition from other coal sources, particularly the Powder River Basin in Wyoming and the Illinois Basin." from p. 3 of SP's Form 10-K for the fiscal year ended December 31, 1994

markets for Western coal. Despite the fact that essentially all new market opportunities for Western coal have been at plants designed to burn high-Btu coal (Exhibit GEV - 7),<sup>28</sup> PRB coal has secured about three-quarters of the new business (Figure 16). This is because, in many instances, the compelling economics of switching to PRB coal offset boiler retrofit costs or the economic penalties associated with using a low-Btu coal in boilers designed for high-Btu coal. Notwithstanding the differences in the quantities of Western coal involved, both types of Western coal have experienced similar percentages of increase in demand growth in new utility markets (55% for PRB coal and 63% for Western high-Btu coal).

FIGURE 16  
SALES OF WESTERN COAL IN NEW UTILITY MARKETS, 1989-1995



Despite the fact that the two Western coal types are direct competitors in many situations, in some cases the two coals are used to complement one another at the same plant – sometimes in blends (see Appendix). This is reflected in the number of plants which have simultaneously used both Western coal types (see Figures 1, 8, and 17). The evaluation of these situations is complicated by the fact that in many of these cases, the

<sup>28</sup> The only exceptions are at Muscatine (which recently switched from Midwestern coal to PRB coal for a boiler which was initially designed for PRB coal) and plants that have traditionally burned very low-Btu lignite (Texas Utilities-Monticello and TMLPA-Gibbons Creek are both in the process of switching to PRB coal at plants designed to burn lignite)



multiple coal types purchased at a given plant are actually used in separate boilers.<sup>29</sup> Conversely, many plants blend limited quantities of Western high-Btu coal with larger quantities of PRB coal to optimize economics and minimize derates.<sup>30</sup> Some plants also use the different Western coal types on a seasonal basis, with the high-Btu coal used during peak demand seasons or periods and the PRB coal used in periods of lower electrical demand.<sup>31</sup>

<sup>32</sup> In addition, Western high-Btu coal is commonly used to supplement or complement Eastern or Midwestern coal. Although the delivered price relationships between these competing coals vary on a case-by-case basis, Western high-Btu coal commonly commands as much as a 20¢/mmBtu delivered price premium relative to PRB coal (i.e., more than \$4.00 per ton; see Figure 18 and Appendix).

The recent change in fuel supply economics resulting from the 1995 implementation of Phase I CAAA has substantially improved the competitive position of low-sulfur Western coal in Midwestern markets. The change has also caused Western high-Btu coal to supplant Midwestern and Eastern coal as the primary competitor to PRB coal in many Midwestern markets (as illustrated in Figure 11). This is evident in the 1995 coal purchases of utilities which include TVA, Illinois Power, Commonwealth Edison, and Wisconsin Electric and the substantial increase in demand for transloading services at the two rail-to-water terminals which serve Western high-Btu coal (KCBX Terminal and Cahokia Terminal).<sup>33</sup> These customers all opted for Western high-Btu coal in direct competition with PRB coal. Utility deregulation may also provide additional incentives for utilities to prefer Western high-Btu coal to PRB coal, as capital expenditures for boiler retrofits and upgrades are unlikely to be passed through to the rate payer, since such costs may be considered as a "stranded investment."

<sup>29</sup> For example, Muscatine's plant is comprised of three units; the pulverized coal unit burns PRB coal, while the stoker and cyclone units burn high-Btu coal (alternately from Midwestern and Western mines)

<sup>30</sup> Examples include plants operated by Union Electric, several of the Wisconsin utilities, and Detroit Edison

<sup>31</sup> Mississippi Power-Daniel

<sup>32</sup> SP 1995 Business Plan - HC65 - 100165 and 100079

<sup>33</sup> Cahokia is served by SP and KCBX is served by Belt Railway Company (a Chicago switch carrier which interchanges with all of the Class I carriers)

FIGURE 17  
LISTING OF PLANTS WHICH USED COMBINATIONS OF WESTERN COAL, 1989-1995

**SOUTHERN WYOMING AND CENTRAL ROCKIES COAL (12 PLANTS)**

CIPS-NEWTON	KP&L-TECUMSEH	SIERRA PACIFIC-N. VALMY
IP-HAVANA	MUSCATINE	UNION ELECTRIC-LABADIE
IP-WOOD RIVER	PG&E-BOARDMAN	UTILICORP-SIBLEY
KP&L-LAWRENCE	PSC-VALMONT	WP&L-EDGEWATER

**SOUTHERN WYOMING AND PRB COAL (30 PLANTS)**

COMED-CRAWFORD	IES-SUTHERLAND	PG&E-BOARDMAN
COMED-FISK	KCP&L-HAWTHORN	SAN ANTONIO-DEELY
COMED-JOLIET	MIDWEST-NEAL	SAN ANTONIO-SPRUCE
COMED-JOLIET 9	MP&L-LASKIN	ST.JOSEPH-LAKE ROAD
COMED-WAUKEGAN	NPPD-SHELDON	TVA-PARADISE
COMED-WILL COUNTY	NIPSCO-BAILLY	UNION ELECTRIC-LABADIE
COMED-PO WERTON	NIPSCO-MICHIGAN CITY	WEPCO-PLEASANT PRAIRIE
DAIRYLAND-ALMA	NIPSCO-MITCHELL	WP&L-EDGEWATER
DAIRYLAND-MADGETT	NIPSCO-SCHAHFER	WP&L-NELSON DEWEY
IG&E-RIVERSIDE	PACIFICORP-BRIDGER	WP&L-ROCK RIVER

**CENTRAL ROCKIES AND PRB COAL (18 PLANTS)**

CP&L-COLETO CREEK	MISS PWR-DANIEL	TECO-BIG BEND
CAJUN-BIG CAJUN 2	NPPD-GENTLEMEN	UNION ELECTRIC-LABADIE
COMED-KINCAID	PACIFICORP-CENTRALIA	WEPCO-OAK CREEK
CPC-COBB	PG&E-BOARDMAN	WEPCO-FRESQUE ISLE
DECO-RIVER ROUGE	PSC-ARAPAHOE	WP&L-EDGEWATER
FREMONT-WRIGHT	SPRINGFIELD-SOUTHWEST	WP&L-ROCK RIVER
GPC-SCHERER		

**CENTRAL ROCKIES AND OTHER COAL (MIDWEST, EAST, ETC.) (13 PLANTS)**

IP-HENNEPIN	SPRINGFIELD-SOUTHWEST	TVA-SHAWNEE
INERSTATE-KAPP	TVA-ALLEN	TVA-WIDOWS CREEK
MISS PWR-WATSON	TVA-COLBERT	WEPCO-PORT WASHINGTON
PP&L-BRUNNER ISLAND	TVA-GALLATIN	WEPCO-VALLEY
SPRINGFIELD-JAMES RIVER		

FIGURE 18  
PREMIUM FOR WESTERN HIGH-BTU COAL VS. PRB COAL (\$/MMBTU)

	1989	1990	1991	1992	1993	1994	1995
AVERAGE	38.2	27.0	25.1	13.6	21.2	19.4	17.7
NO. OF STATES	9	11	10	13	15	18	15

NOTE: ASSESSED FOR ALL COAL-FIRED UTILITY POWER PLANTS ON A STATE-BY-STATE BASIS



The emergence of Western high-Btu coal as a viable competitor to PRB coal is a relatively recent development resulting from two major factors: (1) SP's aggressive rail rates and (2) the 1995 implementation of Phase I CAAA. These issues are central to the future of competition between Western railroads, since the approval of the proposed merger would provide UP and BNSF, via its trackage rights agreement with UP, with the ability to limit competition between Western coals and in the process, eliminate constraints on price increases for PRB coal shipments which may otherwise be available. Opportunities for such price increases are expected to improve in direct proportion to increases in the "sulfur penalties" imposed by CAAA compliance, particularly after the implementation of Phase II CAAA compliance in 2000.

Therefore, on the basis of my analysis of fuel supply economics and railroad competition, I conclude that the competitive interests of coal shippers, the Western high-Btu coal industry, and the terminals which handle rail-to-water shipments of Western high-Btu coal will be seriously undermined by the approval of the proposed UP/SP merger. In conclusion, I consider the approval of the proposed UP/SP merger to be anti-competitive and in not in the interest of shippers.

III. The Limited Source Options Available to SP for Coal Originations has Caused it to Aggressively and Successfully Compete with Coals Originated by Other Railroads - Particularly Coals Originated by UP from PRB and Western High-Btu Mines

Coal is a major commodity group for most railroads and usually comprises the single largest commodity group for carriers which originate coal. SP is no exception, as it not only originates coal from high-Btu Western coal fields located on the Central Corridor, but terminates coal from other source regions, most notably the PRB.

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<sup>34</sup> SP 1996 Business Plan - HC65 - 100200

<sup>35</sup> Ibid.

<sup>36</sup> SP 1995 Business Plan - HC65 - 100006

<sup>37</sup> UP 1995 Business Plan - HC13 - 000694

<sup>38</sup> UP 1995 Business Plan - HC13 - 000717

<sup>39</sup> Ibid.



Unlike UP and BNSF, SP's source options for originations of Western coal are limited exclusively to high-Btu Western coal – nearly exclusively from the Central Corridor.

That SP has been successful in its efforts is singular proof that competition exists between SP and the other Western rail carriers. SP now commands the dominant market share position of high-Btu Western coal rail originations (Figures 9 and 12).

Competition between UP and SP for east-bound shipments of Western high-Btu coal can be demonstrated in several instances in which SP consistently prevailed in situations involving indifferent terminations – and in some cases, at a considerable distance disadvantage relative to UP (Figure 19).<sup>45</sup> The 14 situations listed in Figure 19 involve the vast majority of terminations of Western high-Btu coal delivered to new utility markets for such coal (i.e., 10.3 out of 14.0 million tons; reference Figure 16).

<sup>40</sup> UP 1995 Business Plan - HC13 - 000695

<sup>41</sup> SP 1995 Business Plan - HC65 - 100249

<sup>42</sup> UP 1995 Business Plan - HC13 - 000695

<sup>43</sup> Ibid.

<sup>44</sup> SP 1995 Business Plan - HC65 - 100196; SP 1996 Business Plan - HC65 - 100005

<sup>45</sup> Indifferent terminations are defined as delivery modes or carriers without a competitive interest in the termination of Western high-Btu coal to a given power plant; this also includes delivery situations in which UP and SP both provide access.

FIGURE 19

## MARKETS FOR SP-ORIGINATED WESTERN HIGH-BTU COAL WITH INDIFFERENT ACCESS, 1995

UTILITY	PLANT	ORIGIN CARRIER	TERMINATION	1995 TONS (000)		ALTERNATE COALS DISPLACED	TEST COAL	COMPARISON WITH CENTRAL ROCKIES COAL		
				CENTRAL ROCKIES	TOTAL			VS DISPLACED	VS S. WYO	VS PRB
TVA	SHAWNEE	SP	PAL & BARGE	1,793	3,821	EAST		3¢ LESS		
COM ED	KINCAID	SP	CIM	1,153	1,266	MIDWEST	PRB	26¢ MORE		
TVA	ALLEN	SP	BARGE	1,109	2,108	MIDWEST	EAST	20¢ MORE		
KP&L	LAWRENCE	SP	BNSF	1,051	1,051	S. WYO	RATON	15¢ LESS	15¢ LESS	
MISS PWR	V DANIEL	SP	MSE	951	2,221	EAST	PRB & RATON	23¢ LESS		21¢ MORE
CIPS	NEWTON	SP	ILLINOIS CENTRAL	979	2,992	N/A	PRB & S. WYO	N/A	9¢ MORE	9¢ LESS
ILL PWR	HAYANA	SP	BARGE	761	761	EAST	PRB & S. WYO	30¢ LESS	53¢ LESS	7¢ LESS
WEPCO	PRESQUE ISLE	SP	BARGE	562	1,800	EAST	SPRB	4¢ LESS		15¢ MORE
UNION ELEC	LABADIE	SP	SP & UP	395	6,947	MIDWEST	S. WYO	25¢ MORE	23¢ MORE	68¢ MORE
KP&L	TECUMSEH	SP	BNSF	373	373	S. WYO	RATON	8¢ LESS	8¢ LESS	
INTERSTATE	KAPP	SP	BARGE	372	372	MIDWEST		16¢ LESS		
SPRINGFIELD	JAMES RIVER	SP	BNSF	333	351	MIDWEST		12¢ MORE		
TVA	WIDOWS CR.	SP	BARGE	328	4,701	EAST	SPRB	4¢ MORE		7¢ LESS
ILL PWR	WOOD RIVER	SP	BARGE	233	707	EAST	PRB & S. WYO	29¢ LESS	20¢ LESS	22¢ MORE
TOTALS				10,293	29,381					

In each of the instances listed in Figure 19, SP origins of Western high-Btu coal prevailed in competition with coals which were displaced as well as other competing coals. This includes seven instances where SP-originated coal competed successfully against PRB coal and another six instances in where it successfully competed against UP-originated coal from Southern Wyoming. Although I am not privy to bid documents for any of these situations, test burn shipments and the normal bidding process suggest that in every case, UP origins in Southern Wyoming were afforded an opportunity to compete. My knowledge of typical open market FCB coal prices for these mines (

),<sup>46</sup> discussions with coal marketing personnel affiliated with these mines, and discussions with coal buyers which have solicited bids from these mines collectively indicate that the primary reason such coals failed in competition with SP-served mines was UP's rail rate. The non-competitive nature of UP's rail rates relative to those of SP are underscored by KP&L's conversion of its Lawrence and Tecumseh Plants from 1.4 million tons of UP-originated Southern Wyoming coal to an equivalent amount of SP-originated Colorado coal in 1994 at delivered costs of 8¢ to 15¢/mmBtu less than the former deliveries of the Southern Wyoming coal.

Another example of the competitive rail rates provided by SP pertains to export shipments of Colorado and Utah coal to Long Beach, California. UP has long dominated these export rail deliveries, since its direct routing through Las Vegas, Nevada provides it with a 300 mile distance advantage relative to SP's circuitous routing via Stockton,



California. However, in recent years, SP has aggressively pursued the business and despite its decided distance disadvantage, was successful in securing ARCO's 1995 export business from its West Elk mine in Colorado. This is particularly noteworthy, as shipments from this mine have an additional 200 mile distance disadvantage relative to Utah mines with which it competes -- therefore, in total, ARCO chose to utilize SP despite a 500 mile distance disadvantage relative to its competitors.<sup>47</sup>

Finally, competition relative to the Geneva Steel backhaul bears analysis. This haul has generated considerable discussion in the industry because of UP's lack of success in retaining its long-standing business with Geneva Steel, despite a 600 mile distance advantage relative to the successful bidder -- SP.<sup>48</sup> Although UP Witness Sharp indicates that UP's coal originations were unsuited to a backhaul package in competition with SP, this is not the case, as UP conducted backhauls involving its Southern Wyoming origins<sup>49</sup> prior to losing the business to SP and such opportunities were widely available to UP at the time of the Geneva Steel bid.<sup>50</sup> Presumably, the 600 mile distance advantage enjoyed by UP would have easily overcome any differentials in heating values and FOB mine prices, if any did indeed exist. Clearly, without the competition afforded by SP's competitive rates, Geneva Steel would still be paying a higher rate to UP.

In summary, I have been able to document 16 instances in which SP's aggressive pricing policy has been very successful in competing with UP. In all of these instances, SP was either successful in taking existing business away from UP or successful in competing against UP for new business. In most, if not all, of these cases, UP-served mines in

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<sup>46</sup> SP 1995 Business Plan - HC65 - 100104

<sup>47</sup> p. 271 of Sharp deposition

<sup>48</sup> SP 1996 Business Plan - HC65 - 100211

<sup>49</sup> SP 1996 Business Plan - HC65 - 100202; SP 1995 Business Plan - HC65 - 100039

<sup>50</sup> See the two articles in the appendices of Exhibit GEV - 2

<sup>51</sup> UP's Geneva Steel haul was integrated with a coal haul from Peter Kiewit's Black Butte Mine in Southern Wyoming to Commonwealth Edison's plants

Southern Wyoming with FOB mine prices and coal qualities comparable with SP-served mines in Colorado were afforded an opportunity to compete for the business but were ultimately unsuccessful in their efforts. Although I am responsive to UP's rail rates or its bid quotes, my analysis of the remaining pieces of the fuel supply equations for these situations suggests that UP's rail rates were the primary reason for the lack of success in securing these accounts.

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<sup>62</sup> p. 165 - 167, 280, and 301 - 308 of Sharp deposition



IV. The UP's Sole Witness Regarding the Competitive Impact of the Proposed UP/SP Merger on the Coal Industry is Unqualified to Make Such an Assessment

Richard G. Sharp was retained by UP to submit a Verified Statement regarding the competitive impact of the proposed UP/SP merger on the coal industry. He concluded in his Verified Statement that the proposed UP/SP merger is "pro-competitive in its effects."<sup>53</sup> His Verified Statement was submitted in November 1995 and his deposition was taken on February 13 and 14, 1996. I reviewed Mr. Sharp's Verified Statement and support work papers, observed the taking of his deposition, and reviewed the transcript of such deposition. On the basis of Mr. Sharp's background, demonstrated unfamiliarity with coal industry economics and markets, and study methods, I conclude that he is unqualified to assess the competitive impact of the proposed UP/SP merger on the coal industry.

Mr. Sharp's background, employment record, and experience does not suggest that he has familiarity with the coal industry nor the analytical techniques used in the fuel supply evaluation process. Not only can it be demonstrated that he is unfamiliar with the industry, but the industry is wholly unfamiliar with Mr. Sharp. In my 24 years in the coal industry, I have never heard of Mr. Sharp and during the course of my studies, did not encounter anyone in the coal industry who was familiar with Mr. Sharp's reputation -- including personnel with companies to which he has provided consulting services. Although Mr. Sharp has established credentials in assessing transportation-related matters, particularly in regards to ICC hearings, it is not apparent in any of the materials available to me that he professes expertise to evaluate fuel supply competition within the coal industry.

Mr. Sharp's unfamiliarity with the coal industry and its analytical techniques was confirmed in his deposition, as his responses to questions consistently indicated a gross unfamiliarity with current FOB mine prices, rail rates, coal qualities, contract obligations, coal sources, combustion performance, and other factors which must be included in the evaluation of coal supplies.<sup>54</sup> In this latter regard, he was unfamiliar with the value of the differential in sulfur content between competing coals, and the value of the "derate

<sup>53</sup> p. 670 of Sharp Verified Statement

<sup>54</sup> p. 145, 172, 177, 190, 224, 225, 227, 228, 283, 325, 339, and 340 of Sharp deposition

penalty" for using a PRB coal in a power plant designed for high-Btu coal. By his own admission, he did not conduct an evaluation of FOB mine prices or rail rates in assessing competition in the coal industry.<sup>55</sup> He specifically indicated in his deposition that he did not "delve into specific [rail] rate comparisons" nor "examine SP and UP rate levels in comparison to one another."<sup>56</sup> As has been demonstrated earlier in my Verified Statement, such issues are of major consequence and indeed integral, in conducting an assessment of competition in the coal industry.

Mr. Sharp's studies were essentially confined to an "arms-length, document-based" library search of obscure government publications supplemented with limited traffic data and RDI database information, both provided by UP.<sup>57</sup> He indicated in his deposition that he did not interview any coal shippers or coal producers<sup>58</sup> -- the people most likely to have views on the competitive impacts of the proposed merger and competition between SP and UP -- and his discussions with UP's coal marketing personnel were very limited.<sup>59</sup> In addition, he did not interview anyone from SP, nor did he review the SP's or UP's Coal Business Plans.<sup>60</sup> I understand that Mr. Sharp's studies were largely confined to an assessment of the quantities of coal purchased by utilities from 1988 through 1994, and the delivered price paid for those purchases. He did not ask for, nor evaluate, competitive bid information from UP or SP. Such an approach, by one not familiar with the coal industry, is effectively guaranteed to yield erroneous results and a flawed perspective of the coal industry. In addition, this approach is not consistent with typical industry methods for assessing coal supply competition nor for evaluating coal supply options.

By considering only delivered coal prices,<sup>61</sup> Mr. Sharp was not in a position to determine the effect of rail rates on competition within the Western coal industry -- despite the fact that this should be the very core of any assessment of competition in the rail industry. By so doing, he blurs the distinction of the importance of rail rates in

<sup>55</sup> p. 227 of Sharp deposition

<sup>56</sup> p. 223, 224, and 277 of Sharp deposition

<sup>57</sup> p. 24 and 95 of Sharp deposition

<sup>58</sup> p. 95, 181, and 199 of Sharp deposition

<sup>59</sup> p. 20, 21, and 25 of Sharp deposition

<sup>60</sup> p. 26 and 27 of Sharp deposition

<sup>61</sup> p. 339 and 340 of Sharp deposition



determining the competitive aspects of individual coal shipments and allows himself to be persuaded that the inability of a given coal to compete in the marketplace is due more to FOB mine prices and coal quality than rail rates.<sup>62</sup> In reality, all three factors are important, but without an assessment of each of these integral parts of the equation, one cannot properly assess competition -- particularly the role of rail rates in determining the competitiveness of a given coal source.

Mr. Sharp's evaluation was further hampered by using data only through 1994, despite the fact that coal supply economics were profoundly changed by the implementation of Phase I CAAA in 1995 which resulted in the expansion of markets available to Western high-Btu coal (as has been discussed earlier in my Verified Statement). Although partial year data for 1995 were available to him, he did not include such information in his analysis, despite his acknowledgment that Phase I CAAA "took effect on 1/1/95."<sup>63</sup> I conclude from his testimony that he was not aware that CAAA-imposed "sulfur penalties" did not come into effect until 1995. His reliance on dated information would not have provided him with an appreciation of the evolving economics which influence markets and competition involving Western high-Btu coal and Western rail carriers.

References throughout Mr. Sharp's Verified Statement and his deposition belie his unfamiliarity with the market and economic aspects of the coal industry which discount his reliability to assess the competitive impacts of the proposed UP/SP merger on the coal industry. Some of the more significant problems that I have with his testimony are enumerated and discussed below:

1. Mr. Sharp does not differentiate between *competition* and *successful competition*, since his assessment that "competition between Union Pacific origins and Southern Pacific origins was quite modest [or] rare" is apparently based on which carrier was successful in gaining the business -- not that the carriers competed for the business.<sup>64</sup> Given the fact that SP was unusually successful in competing against UP with coal of similar FOB mine price, quality, and transportation logistics, he

<sup>62</sup> p. 141 and 249 of Sharp deposition

<sup>63</sup> p. 90 - 92 of Sharp deposition

apparently concludes that the two carriers do not compete -- when in reality they directly compete. Mr. Sharp's lack of review of information concerning bids and rail rates for the two carriers limits his ability to make assessments regarding competition between the two carriers.

2. It is apparent that Mr. Sharp has assessed competition solely on the basis of delivered coal prices and has not taken into account the penalties which must be ascribed for differences in sulfur content and combustion performance for competing coals (although he indicated in his deposition that he is generally aware of these relationships).<sup>65</sup> As a consequence, competition between PRB coal and Western high-Btu coal is improperly assessed -- when a more proper and complete evaluation of fuel supplies would cause the PRB coal to be discounted as much as 20¢/mmmbtu to compete effectively with Western high-Btu coal in situations involving power plants designed for high-Btu coal. It is apparent that Mr. Sharp's assessment that Western high-Btu coal is a niche player in emerging markets for PRB coal is based on his perception that competition between the two coals is assessed solely on the basis of delivered price -- a conclusion which is not borne out in actual practice.
  
3. Mr. Sharp contends that coal from UP origins in Southern Wyoming does not compete with high-Btu coal from SP origins Colorado due to higher mine costs and significant differences in Btu content ("20%").<sup>66</sup> As I have shown in earlier in this Verified Statement, FOB mine prices and coal qualities are essentially identical between the primary coal suppliers in the two regions as is confirmed by materials from RDI's COALdata database (which was available to Mr. Sharp from UP) and  

<sup>67</sup> The distinction is particularly important,

because, as has been demonstrated earlier in this Verified Statement, coal from these two regions regularly compete in the same markets and SP has been

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<sup>64</sup> p. 48 of Sharp deposition

<sup>65</sup> p. 52 - 57, 84 - 87, 102 - 104, 163 - 164, 178, 188 - 190, and 315 of Sharp deposition

<sup>66</sup> p. 679 and 681 of Sharp Verified Statement; p. 160 - 162 and 280 of Sharp deposition

<sup>67</sup> p. 339 of Sharp deposition; p.



singularly successful in competing against UP, even in cases where it has a decided logistical disadvantage.<sup>68</sup>

Finally, it is noteworthy that Mr. Sharp was used as UP's sole witness in regards to the assessment of competitive impacts of the proposed UP/SP merger on the coal industry, despite a cadre of highly qualified experts within UP's Coal Marketing Department which could have been used to supplement Mr. Sharp's Verified Statement and testimony. I expect, however, that the under-oath testimony of personnel within UP's Coal Marketing Department would have substantially conflicted with Mr. Sharp's views of the coal industry and would have confirmed the basis for many of the conclusions that are included in my analysis. One of these experts, Mr. William E. Nock, is identified as such in response to WSC's discovery requests submitted March 12, 1996.<sup>69</sup> Others include Henry L. Arms, F.M. Gough, L.S. Weindel, Jerry P. Klym, Gregory C. Dixon, and Steven K. Jensen.

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<sup>68</sup> SP successfully competed against UP for the Geneva Steel business, despite a 600 mile distance disadvantage; SP successfully competed against UP for west-bound export shipments to Long Beach, despite a 300 mile distance disadvantage.

<sup>69</sup> Response to WSC Interrogatory No. 9 (UP/SP - 182), p. 10

## APPENDICES

Plants that have burned 1%-99% of any Western Bituminous Coal

Price differentials between Western high-Btu and Powder River Basin coals

Designation of plants considered as "new" customers for Western coal



**PLANTS THAT HAVE BURNED 1%-99% OF ANY WESTERN BITUMINOUS COAL (100% PLANTS, I.E. CAMZO, HUNTER NOT INCLUDED)**

% = TONS REGION / TOTAL TONS FOR EACH YEAR TONS = THOUSANDS OF TONS CENTS = TOTAL DELIVERY \$ PER MILLION BTU

Utility	Plant	Year	Green River-Hams Fork WYOMING			HANNA			Green River-Hams Fork COLORADO			UINTA			FOUR CORNERS			SPRB			NPBB			OTHER SOURCE REGIONAL			TOTAL TENS				
			%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS					
Arizona Electric Pwr Coop	Apache	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	94%	785	171.4	6%	47	164.4	0%	0	0	0%	0	0	0%	832			
		1990	0%	0	0	1%	11	186.7	0%	0	0	0%	0	0	95%	1,023	173.3	4%	41	144.5	0%	0	0	0%	0	0	0%	1,074			
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	98%	949	167.3	2%	20	156.7	0%	0	0	0%	0	0	0%	969			
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	58%	119	167.5	42%	86	127.7	0%	0	0	0%	0	0	0%	205			
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	1,221	126.6	0%	0	0	0%	0	0	0%	1,221			
		1994	0%	0	0	0%	0	0	3%	40	97.0	0%	0	0	0%	0	0	97%	1,282	132.1	0%	0	0	0%	0	0	0%	1,321			
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	1%	10	144.7	99%	1,122	133.7	0%	0	0	0%	0	0	0%	1,132			
Cajun Electric Power Coop Int.	Big Cajun 2	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	96%	4,665	156.5	0%	0	0	CAPP	4%	195	201.7	4,860			
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	95%	4,471	167.8	0%	0	0	CAPP	5%	211	204.2	4,682			
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	97%	5,059	152.8	0%	0	0	CAPP	3%	152	158.6	5,212			
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	5,344	147.5	0%	0	0	0%	0	0	0%	5,344			
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	5,701	151.9	0%	0	0	0%	0	0	0%	5,701			
		1994	0%	0	0	0%	0	0	0%	0	0	1%	37	156.4	0%	0	0	0%	0	0	96%	5,588	152.2	0%	0	0	IMPORT	3%	169	165.8	5,794
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	5,844	157.7	0%	0	0	0%	0	0	0%	5,844			
Cedar Falls	Streater Station	1989	12%	3	113.5	1%	0	87.2	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	87%	22	135.1	25			
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	22	139.0	22			
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	45	135.7	45			
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	10	140.8	10			
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	23	107.1	23			
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB/CAPP	100%	42	139.8	42			
Central Illinois Pub Serv Co	Maradocio	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	425	159.9	425			
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	518	159.9	518			
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	414	148.9	414			
		1992	0%	0	0	0%	0	0	0%	0	0	10%	53	155.7	0%	0	0	0%	0	0	0%	0	0	ILB	90%	476	152.6	529			
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	475	154.5	475			
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	100%	462	156.2	462			
	Newton	1989	0%	0	0	0%	0	0	2%	39	179.4	1%	20	179.8	0%	0	0	0%	0	0	0%	0	0	ILB	96%	1,844	163.7	1,945			
		1990	0%	0	0	6%	127	147.2	1%	11	156.3	0%	0	0	11%	222	165.9	0%	0	0	0%	0	0	ILB	82%	1,676	167.9	2,035			
		1991	0%	0	0	0%	0	0	13%	254	142.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB	87%	1,753	156.9	2,007			
		1992	0%	0	0	0%	0	0	2%	31	146.8	20%	346	139.3	0%	0	0	0%	0	0	0%	0	0	ILB	78%	1,333	173.3	1,710			
		1993	0%	0	0	0%	0	0	14%	331	137.5	20%	494	137.5	0%	0	0	0%	0	0	1%	13	145.7	0%	0	0	ILB	66%	1,608	173.0	2,446
		1994	0%	0	0	0%	0	0	23%	593	137.5	0%	10	134.3	3%	69	138.9	0%	0	0	0%	0	0	ILB	73%	1,857	173.0	2,520			
Central Power & Light Co	Colato Creek	1989	0%	0	0	0%	0	0	2%	32	172.6	98%	1,724	215.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,755			
		1990	0%	0	0	0%	0	0	34%	619	173.6	66%	1,210	222.5	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,829			
		1991	0%	0	0	0%	0	0	17%	293	171.6	83%	1,441	214.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,734			
		1992	0%	0	0	0%	0	0	5%	84	171.7	91%	1,697	206.6	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,860			
		1993	0%	0	0	0%	0	0	28%	525	159.2	65%	1,231	223.6	1%	22	132.3	0%	0	0	0%	0	0	0%	0	0	0%	1,900			
		1994	0%	0	0	0%	0	0	23%	414	159.9	69%	1,251	212.6	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,810			
Colorado Springs Utilities	Drake	1989	0%	0	0	0%	0	0	29%	209	170.7	71%	520	157.0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	729			
		1990	0%	0	0	0%	0	0	0%	0	0	100%	608	150.0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	608			
		1991	0%	0	0	0%	0	0	1%	9	173.4	99%	598	151.5	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	607			
		1992	0%	0	0	0%	0	0	6%	35	128.0	94%	570	166.6	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	605			
		1993	0%	0	0	0%	0	0	1%	10	93.7	99%	695	163.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	705			
		1994	0%	0	0	0%	0	0	10%	73	96.0	90%	675	162.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	748			
	Nixon	1989	0%	0	0	0%	0	0	12%	83	87.8	88%	598	191.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	681			
		1990	0%	0	0	0%	0	0	72%	508	146.4	21%	151	133.7	0%	0	0	0%	0	0	6%	43	79.5	0%	0	0	0%	763			
		1991	0%	0	0	0%	0	0	59%	447	125.6	39%	293	149.9	3%	21	92.1	0%	0	0	0%	0	0	0%	0	0	0%	760			
		1992	0%	0	0	0%	0	0	52%	420	125.4	48%	384	153.5	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	804			

Utility	Pl	Year	Green River-Hams Fork WYOMING			HANNA			Green River-Hams Fork COLORADO			UINTA			RATON			FOUR CORNERS			SPR			NPB			OTHER SOURCE REGIONS			TOTAL TOMBS	
			%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	REGION	%	TONS		CENTS
Columbia Water & Light Dept	Columbia- Mo	1992	0%	0	0	0%	0	0	45%	276	136.5	55%	335	146.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	611	
		1993	0%	0	0	0%	0	0	72%	469	109.6	28%	184	160.9	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	653	
		1994	0%	0	0	0%	0	0	74%	429	97.4	26%	154	159.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	583	
		1995	0%	0	0	0%	0	0	93%	699	94.6	7%	52	196.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	751	
		1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB/CAPP 100%	42	157.8	42	
1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP/ILB 100%	36	196.4	36			
1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP 100%	50	213.8	50			
1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP 100%	37	211.4	37			
1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP 100%	35	210.2	35			
1994	0%	0	0	0%	0	0	0%	0	0	2%	1	213.0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP 98%	46	211.0	47			
1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	CAPP 100%	36	207.1	36			
Commonwealth Edison Co	Crawford	1989	98%	344	308.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	2%	8	308.7	0%	0	0	352	
		1990	95%	241	323.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	5%	13	317.3	0%	0	0	254	
		1991	99%	272	314.0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	1%	4	301.2	0%	0	0	276	
		1992	97%	295	315.2	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	3%	8	306.8	0%	0	0	303	
		1993	2%	14	302.0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	6%	36	98.4	91%	535	267.6	0%	0	0	585	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	90%	929	286.5	10%	103	189.8	0%	0	0	1,032	
		1995	0%	0	0	0%	0	0	0%	0	0	3%	27	165.4	0%	0	0	0%	0	0	67%	624	302.8	30%	279	250.1	0%	0	0	930	
	Fish	1989	94%	233	312.3	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	6%	14	309.8	0%	0	0	247	
		1990	99%	398	322.2	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	1%	2	311.7	0%	0	0	400	
		1991	99%	401	317.5	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	1%	2	310.9	0%	0	0	403	
		1992	61%	196	317.4	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	21%	68	118.0	18%	58	307.0	0%	0	0	322	
		1993	6%	26	321.6	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	1%	4	358.5	93%	406	280.7	0%	0	0	436	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	54%	241	275.3	46%	203	226.2	0%	0	0	444	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	30%	37	299.2	70%	85	273.2	0%	0	0	122	
	Joliet	1989	85%	1,319	287.9	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	15%	229	297.8	0%	0	0	1,548	
		1990	35%	1,138	295.7	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	15%	196	297.5	0%	0	0	1,334	
		1991	43%	558	288.5	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	37%	327	282.8	0%	0	0	884	
		1992	78%	1,234	286.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	3%	43	103.2	20%	314	282.5	0%	0	0	1,591	
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	23%	298	253.7	77%	1,010	241.7	0%	0	0	1,308	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	18%	441	233.3	82%	2,047	211.0	0%	0	0	2,488	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	66%	1,658	206.2	34%	839	244.8	0%	0	0	2,497	
	Joliet 9	1989	89%	230	288.1	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	11%	27	298.8	0%	0	0	257	
		1990	71%	120	295.6	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	29%	49	297.7	0%	0	0	169	
		1991	68%	204	288.8	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	32%	96	282.2	0%	0	0	301	
		1992	74%	241	286.8	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	4%	14	103.3	22%	73	281.7	0%	0	0	326	
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	23%	107	237.8	77%	352	238.5	0%	0	0	458	
		1994	0%	0	0	0%	0	0	0%	0	0	12%	196	131.2	0%	0	0	0%	0	0	18%	115	220.4	82%	507	223.0	0%	0	0	622	
		1995	0%	0	0	0%	0	0	0%	0	0	91%	1,153	138.7	0%	0	0	0%	0	0	68%	502	205.7	32%	241	254.8	0%	0	0	743	
	Kincaid	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 100%	2,029	148.8	2,029	
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 100%	2,335	138.1	2,335	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 100%	2,367	126.6	2,367	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 100%	1,716	166.9	1,716	
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 100%	1,761	104.2	1,761	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	ILB 88%	1,453	104.6	1,449	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	6%	72	315.5	0%	0	0	ILB 3%	41	100.8	1,266	
	Powerton	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	1,915	280.9	0%	0	0	2,421	
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	1,915	280.9	0%	0	0	1,969	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	1,836	266.8	0%	0	0	1,826	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	1,279	267.6	0%	0	0	1,279	
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	95%	2,424	279.6	5%	116	239.3	0%	0	0	2,540	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	63%	1,307	217.0	37%	755	195.1	0%	0	0	2,062	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	81%	2,874	252.9	17%	595	249.4	0%	0	0	3,560	
Waukegan	1989	98%	662	276.3	0%	0	0	0%	0	0																					



Utility	Plant	Year	Green River-Hams Fork WYOMING			Green River-Hams Fork COLORADO			UNITA			BATON			FOUR CORNERS			SPRB			NPRB			OTHER SOURCE REGIONS			TOTAL TENS		
			%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	%	TONS	CENTS	REGION	%	TONS		CENTS	
Consumers Power Co	Cobb	1992	3%	648	316.4	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	61%	1,034	500.4	0%	0	0	1,682		
		1993	2%	33	314.9	0%	0	0	0%	0	0	0%	0	0	0%	0	0	74%	1,478	276.6	24%	481	263.5	0%	0	0	1,992		
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	73%	1,717	259.4	27%	625	189.6	0%	0	0	2,351		
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	72%	1,652	263.1	23%	527	255.7	0%	0	0	2,299		
		1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	32%	340	127.7	0%	0	0	CAPP/NAPP	68%	709	180.6	1,049	
Dairyland Power Cooperativ e	Alma	1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	42%	346	127.3	0%	0	0	CAPP/NAPP	58%	481	165.4	827	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	37%	301	131.7	0%	0	0	CAPP/NAPP	63%	507	163.2	807	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	42%	359	130.3	0%	0	0	58%	500	177.1	859		
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	52%	451	127.4	0%	0	0	CAPP/NAPP	48%	421	175.7	872	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	60%	593	128.1	0%	0	0	CAPP/ILB	40%	591	164.1	984	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	67%	637	118.9	1%	11	130.2	CAPP/ILB	31%	292	156.1	958	
	Genoa	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	37%	304	112.0	0%	0	0	ILB	63%	510	131.7	814	
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	38%	219	118.6	0%	0	0	ILB/CAPP	62%	351	130.6	570	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	15%	96	125.6	0%	0	0	ILB/CAPP	85%	541	120.2	630	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	13%	103	124.3	0%	0	0	ILB/CAPP	85%	660	126.2	773	
		1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	34%	143	109.8	0%	0	0	ILB/CAPP	64%	269	130.9	423	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	21%	117	115.4	0%	0	0	ILB	79%	440	129.6	556	
	IP Madgett	1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	38%	361	119.1	0%	0	0	ILB	62%	592	131.1	953	
		1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	83%	890	131.8	0%	0	0	ILB/NAPP	17%	179	144.8	1,049	
1990		0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	86%	988	134.0	0%	0	0	ILB/CAPP	14%	161	142.8	1,149		
1991		0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	84%	961	134.9	0%	0	0	ILB	16%	161	139.0	1,142		
1992		0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	64%	832	143.4	0%	0	0	ILB	16%	166	139.4	992		
1993		0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	83%	947	140.1	0%	0	0	ILB/CAPP	12%	139	124.9	1,137		
Detroit Edison Co	River Rouge	1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	84%	814	142.9	0%	0	0	ILB	16%	154	135.8	968	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	91%	899	140.4	0%	0	0	ILB	9%	84	132.7	983	
		1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	2%	24	104.0	0%	0	0	CAPP	98%	1,021	182.3	1,045	
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	7%	16	107.4	0%	0	0	CAPP	98%	971	166.9	987	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	8%	84	110.3	0%	0	0	CAPP	52%	947	162.8	1,031	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	22%	209	105.3	0%	0	0	CAPP	72%	759	159.3	968	
Framont Dept Of Utilities	Wright	1993	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	37%	299	104.0	0%	0	0	CAPP/NAPP	67%	848	163.2	1,250	
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	25%	317	106.1	0%	0	0	CAPP/NAPP	73%	933	163.9	1,271	
		1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	48%	614	105.6	0%	0	0	CAPP	49%	632	160.0	1,290	
		1989	0%	0	0	0%	0	0	66%	80	181.8	0%	0	0	0%	0	0	34%	42	155.2	0%	0	22.6	0%	0	0	121		
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	100%	191	82.4	0%	0	0	0%	0	0	191		
		1991	0%	0	0	1%	5	170.0	0%	0	0	0%	0	0	0%	0	0	99%	193	82.4	0%	0	0	0%	0	0	196		
Georgia Power Co	Scherer	1992	0%	0	0	17%	31	151.0	0%	0	158.8	0%	0	0%	0	0	83%	149	84.0	0%	0	0	0%	0	0	0	180		
		1993	0%	0	0	0%	0	0	0%	0	225.6	0%	0	0%	0	0	0%	0	98%	147	79.9	0%	0	0	INTERIOR	2%	3	17.9	150
		1994	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	99%	238	82.1	1%	3	79.6	0%	0	0	241		
		1995	0%	0	0	11%	20	131.9	0%	0	0	0%	0	0	0%	0	0	89%	169	85.8	0%	0	103.2	0%	0	0	150		
		1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	3%	54	181.1	CAPP	97%	1,845	219.5	1,899	
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	43%	1,529	141.8	0%	0	0	CAPP	57%	1,993	226.2	3,522	
Ias Utilities Inc	Prairie Creek	1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	23%	953	151.4	0%	0	0	CAPP	77%	3,183	210.0	4,137	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0	0	CAPP	100%	2,810	217.7	2,810		
		1993	0%	0	0	0%	0	0	1%	44	165.2	0%	0	0	0%	0	0	13%	700	144.9	0%	0	0	CAPP	86%	4,579	199.3	5,323	
		1994	0%	0	0	0%	0	0	0%	11	165.8	0%	0	0	0%	0	0	52%	4,831	151.4	0%	0	0	CAPP	48%	4,429	193.1	9,271	
1995	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	65%	6,762	151.8	0%	0	0	CAPP	35%	3,699	196.8	16,461			
Ias Utilities Inc	Prairie Creek	1989	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0	0	ILB	100%	268	141.4	268		
		1990	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	17%	63	102.4	0%	0	0	ILB/N-TER	83%	312	158.8	376	
		1991	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	53%	275	107.3	0%	0	0	ILB/N-TER	47%	245	151.7	520	
		1992	0%	0	0	0%	0	0	0%	0	0	0%	0	0	0%	0	0	53%	231	110.4	0%	0	0	ILB/N-TER	47%	208	145.0	439	

