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September 30, 2005



Via HAND DELIVERY

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

PUBLIC VERSION

214792

Re: **STB Docket No. 42088, *Western Fuel Association, Inc. and Basin Electric Cooperative, Inc. v. BNSF Railway Company***

Dear Secretary Williams:

Enclosed for filing in the above-captioned matter are the original and ten copies of the Rebuttal Evidence and Argument of BNSF Railway Company (BNSF). The Public version of the Rebuttal Evidence and Argument consists of a single volume containing the Narrative and Exhibits. Also enclosed are three copies of a CD containing a PDF version of the Public Narrative and Exhibits. BNSF is filing the Highly Confidential version of this Rebuttal Evidence and Argument today under a separate cover letter.

Please date stamp the extra copy of this cover letter and return it to the messenger who delivered this filing.

Sincerely,

A handwritten signature in cursive script, appearing to read "David F. Rifkind".

David F. Rifkind

Enclosures

cc: Counsel for Complainant

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PUBLIC VERSION

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Docket No. 42088

**WESTERN FUELS ASSOCIATION, INC. AND
BASIN ELECTRIC POWER COOPERATIVE, INC.**

v.

BNSF RAILWAY COMPANY

**Rebuttal Evidence of
BNSF Railway Company**

NARRATIVE & EXHIBITS

Volume I of I

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September 30, 2005

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Abbreviations

Terms:

AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
AEI	Automatic Equipment Identifications
Basin	Basin Electric Power Cooperative
BN	Burlington Northern
BNSF	BNSF Railway Company
DB	Dynamic Brake
EIA	Energy Information Administration
IC	Isolated
ICC	Interstate Commerce Commission
LO	Locomotive
O-D	Origin-Destination
PRB	Powder River Basin
QRS	Quality Rail Service, Inc.
RCAF-U	Rail Cost Adjustment Factor-Unadjusted for Changed in Productivity
ROI	Return of Net Investment
RSAM	Revenue Shortfall Allocation Method
R/VC	Revenue-to-Variable Cost
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
SC	Shutdown
SEM	Switch Engine Minute
STB	Surface Transportation Board

TSS	Transportation Support Systems
URCS	Uniform Rail Costing System
WFA	Western Fuels Association, Inc.

Case Names

<i>TMPA</i>	<i>Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Ry. Co.</i> , STB Docket No. 42056 (served Mar. 24, 2003)
<i>Rate Guidelines</i>	<i>Rate Guidelines--Non-Coal Proceedings</i> , STB Ex Parte No. 347 (Sub-No.2) (served June 22, 2005)
<i>Review of Rail Access and Competition Issues</i>	<i>Review of Rail Access and Competition Issues</i> , STB Ex Parte No. 575 (served April 16, 1998)
<i>Standards for Railroad Revenue Adequacy</i>	<i>Standards for Railroad Revenue Adequacy</i> , 3 I.C.C.2d 261, 267 (1986)
<i>Xcel</i>	<i>Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Ry. Co.</i> , STB Docket No. 42057 (served June 7, 2004)

I. COUNSEL’S ARGUMENT AND SUMMARY OF THE EVIDENCE

This is the Rebuttal Evidence and Argument of defendant BNSF Railway Company (“BNSF”) in STB Docket No. 42088, *Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company*. BNSF’s Rebuttal Evidence and Argument responds to the Reply Evidence of complainants Western Fuels Association (“WFA”) and Basin Electric Power Cooperative, Inc. (“Basin”) (collectively referred to as “WFA/Basin”), filed on July 20, 2005. The format of this Rebuttal Evidence and Argument complies with the Board’s instructions in STB Ex Part 347 (sub-No.3), *General Procedures for Presenting Evidence in Stand-Alone Rate Cases* (served March 12, 2001).

A. VARIABLE COST EVIDENCE

Section II of this Rebuttal Narrative sets out BNSF’s response to several issues raised by WFA/Basin in their Reply Evidence relating to the calculation of variable costs for the issue traffic movement. BNSF’s Rebuttal Evidence focuses on three principal issues: (1) the calculation of switching costs for the Laramie River movement; (2) the calculation of a movement-specific adjustment to account for the greater-than-average fuel consumption on Laramie River trains; and (3) the calculation of a locomotive spare margin that properly captures both unavailable and unutilized locomotive time. These issues, and a few other contested issues relating to the calculation of variable costs, are addressed in detail in Section II of the Narrative and are not addressed further here.

The R/VC ratios developed by BNSF in this Rebuttal Evidence differ slightly from those presented in BNSF’s Reply Evidence as a result of BNSF’s correction of a minor error that was pointed out by WFA/Basin in their Reply Evidence. The resulting R/VC ratios are set out in Table I-I below.

Table I-1
R/VC Ratios
Fourth Quarter 2004

MINE	RATE	VC	R/VC
Northern PRB			
Dry Fork	\$6.71	\$2.05	328%
Eagle Butte	\$6.72	\$2.10	320%
Central PRB			
Caballo Rojo	\$6.53	\$1.86	352%
Cordero	\$6.48	\$1.84	353%
Southern PRB			
Jacobs Ranch	\$6.25	\$1.73	361%

B. THE R/VC RATIOS FOR THE ISSUE TRAFFIC RATES ARE CONSISTENT WITH CONGRESS' POLICY THAT REVENUE INADEQUATE RAILROADS BE PERMITTED TO EXERCISE MEANINGFUL DIFFERENTIAL PRICING

On opening, BNSF acknowledged that the R/VC ratios on the issue traffic exceed the Board's jurisdictional threshold. However, BNSF explained that rates that generate relatively high R/VC ratios on short-haul movements to shippers with inelastic demand, such as the Laramie River movement, are entirely consistent with Congress' express policy "to promote a safe and efficient rail transportation system by allowing rail carriers to earn adequate revenues, as determined by the Board." 49 U.S.C. §10101(3). Railroads can achieve and sustain revenue adequacy only by exercising meaningful differential pricing. Indeed, the Board promulgates a benchmark -- the RSAM -- to identify the level of rates that a railroad must be allowed to charge on average to shippers with inelastic demand to generate adequate revenues. Since the RSAM is an average, a railroad must be able to charge some shippers rates that significantly exceed the RSAM. The challenged rates in this case generate R/VC ratios of 320 to 361, and the four-year

average RSAM of 323 that the Board has calculated for BNSF for the years 2000-2003 falls within that range of R/VC ratios.¹

On reply, WFA/Basin do not contest BNSF's assertion that revenue inadequate railroads must be permitted to engage in differential pricing to achieve the congressional goal of a revenue adequate railroad industry. Instead, WFA/Basin argue that BNSF is not, in fact, revenue inadequate. WFA/Basin point to general statements by BNSF to its shareholders concerning BNSF's "overall financial well-being" as evidence that BNSF is already earning adequate revenues. WFA/Basin Reply Nar. at I-7. WFA/Basin further state that the Board can ignore its annual revenue adequacy calculations, which show that BNSF has never earned adequate revenues, arguing that the Board's revenue adequacy standard is flawed. *Id.* at I-8.

The Board cannot ignore its determination that BNSF is revenue inadequate. The Board's current revenue adequacy standard was promulgated pursuant to Congress' explicit instruction that the agency develop standards to determine whether railroads are earning sufficient revenues. 49 U.S.C §10704(a)(2). The current standard compares a railroad's revenues with the revenues that would be needed to earn a return on the railroad's net investment equal to the industry's cost of capital. As the ICC explained, "[i]f a firm does not earn its cost of capital, sooner or later investors will become discouraged and put their dollars in other investments."² BNSF has never earned a return on its net investment equal to the industry's cost of capital. While BNSF's financial position has improved in recent years, the Board's revenue adequacy standard is properly concerned with the longer term viability of the rail industry and the ability of railroads to meet current and future transportation needs.

¹ See *Rate Guidelines -- Non-Coal Proceedings*, STB Ex Parte No. 347 (Sub-No.2) (served June 22, 2005).

² *Standards for Railroad Revenue Adequacy*, 3 I.C.C.2d 261, 267 (1986).

WFA/Basin incorrectly claim that “[i]ndividual STB members have acknowledged that the STB’s revenue adequacy rules produce flawed results,” citing the Board’s 1996 revenue adequacy determination. WFA/Basin Reply Nar. at I-8. In fact, one Board member in that decision urged a review of the revenue adequacy standard in light of financial improvements that the railroads had achieved since the Staggers Act was enacted, but that Board member never asserted that the standard was flawed. Moreover, the other two Board members concluded at that time that it was not appropriate to revisit the revenue adequacy standards.³ Following that decision, shippers continued to make vague complaints about the validity of the revenue adequacy standard, and two years later, the Board gave rail shippers the opportunity to participate in an expert review of the revenue adequacy standards to determine whether changes should be made.⁴ The railroad industry was willing to undertake this review, but the shippers declined to participate and the review did not go forward. Unless or until the Board concludes that changes should be made to the current revenue adequacy standard, the Board’s current standard is the only legally relevant measure of the financial health of a railroad for purposes of the Board’s rate reasonableness determinations.

In Section IV of this Narrative, BNSF’s economic expert Professor Joseph P. Kalt addresses the critical importance as a matter of sound transportation policy of allowing railroads to earn revenues sufficient to replace aging assets and to invest in the expansion of capital-intensive rail infrastructure. He explains the flaws in WFA/Basin’s claim that BNSF’s revenue needs should be judged by reference to general statements to the financial community rather than by reference to the Board’s revenue adequacy determination for BNSF. As Professor Kalt

³ *Railroad Revenue Adequacy -- 1995 Determination*, 1 S.T.B. 167, 168-9 (1996).

⁴ *Review of Rail Access and Competition Issues*, STB Ex Parte No. 575 (served April 16, 1998).

explains, statements by railroads to the financial community that they can generate returns on incremental investments do not demonstrate the adequacy of railroads' revenues in the longer term to replace assets or to meet increasing demand with expanded capacity. In fact, Professor Kalt notes that because the Board's current revenue adequacy standard is based on the book value of a railroad's assets, that standard may actually *understate* the return on investment that is needed to encourage capital-intensive capacity expansion.

In addition to challenging BNSF's revenue inadequate status, WFA/Basin argue that the statutory revenue adequacy policy does not "grant BNSF a license to charge whatever it wants on captive traffic." WFA/Basin Reply Nar. at I-9. While this observation is true, it is also beside the point. BNSF did not seek to charge "whatever it wants" on the Laramie River movement. As BNSF's Assistant Vice President of Coal Marketing, Mr. Robert Brautovich, explained in BNSF's Reply Evidence, BNSF considered a variety of commercial factors and established a rate for the Laramie River movement that was consistent with market forces that existed in October 2004, when the prior contract expired. Thus, the rates established by BNSF for the issue traffic were not only consistent with market conditions, they were also consistent with the Board's RSAM calculations which indicate the level of revenues that BNSF needs to generate to become revenue adequate.⁵ There is nothing about the level of the challenged rates that would suggest that they are "draconian" or "outrageous," as WFA/Basin repeatedly assert. *See, e.g.*, WFA/Basin Reply Nar. at I-1, I-10.

⁵ WFA/Basin suggest that the proper benchmark for assessing BNSF's revenue needs is not the RSAM but rather a benchmark computed based on all BNSF traffic, including competitive traffic. WFA/Basin Reply Nar. at I-9, I-10. This suggestion is misplaced, since BNSF could never achieve the purported system-wide average mark-up unless it were able to raise its rates on competitive traffic. However, any attempt to raise prices on competitive traffic would result in the loss of that traffic. The RSAM properly considers only traffic generating revenues that exceed the jurisdictional threshold.

C. OTHER EVIDENCE -- THE COMMERCIAL REASONABLENESS OF THE CHALLENGED RATES

In Section IV of WFA/Basin's Reply Evidence titled "Other Evidence," WFA/Basin address Professor Kalt's opening testimony on the commercial reasonableness of the common carrier rates established by BNSF for the Laramie River movement in light of market conditions that existed at the time the rates were established. On reply, WFA/Basin dismissed Professor Kalt's assessment of market conditions and continued to focus exclusively on the fact that the common carrier rates increased when the contract expired as evidence of BNSF's supposedly unreasonable commercial behavior. In Section IV of this Rebuttal Narrative, Professor Kalt responds to WFA/Basin's specific arguments and that discussion will not be repeated here.

However, WFA/Basin's discussion of Professor Kalt's testimony raises a legal question that BNSF addresses in this Counsel's Argument, namely whether it would be permissible for the Board to disregard the common carrier rates that BNSF established for the issue traffic in performing the SAC analysis on grounds that BNSF's management purportedly had a "regulatory incentive to publish high tariff rates."⁶ As explained below, WFA/Basin's speculation about a purported "regulatory incentive" to set high common carrier rates has no place in a SAC analysis, particularly where, as here, there are objective factors that establish the commercial reasonableness of a defendant's rate setting actions.

WFA/Basin urge the Board to disregard the rates set by BNSF for the issue traffic in two specific areas of the SAC analysis. First, WFA/Basin argue that the Board should determine SAC revenues generated by the issue traffic using fictional rates different from those set out in BNSF's common carrier rate authority. The fictional rates that WFA/Basin use in their SAC calculations exclude the fuel surcharge that WFA/Basin find objectionable and they disregard

⁶ WFA/Basin Reply Nar. at I-7.

BNSF's phasing in of the rate increase over a three-year period. Second, WFA/Basin claim that the rates set by BNSF can be ignored in determining the level of any prescribed rate if SAC revenues are found to exceed SAC costs. Indeed, WFA/Basin urge the Board to abandon its use of the well established percentage rate reduction methodology altogether on grounds that BNSF set unreasonably high rates to game the SAC analysis.

The Board cannot permissibly ignore BNSF's lawfully established rates in carrying out the SAC analysis. The governing statute gives railroads the right to set rates in the first instance, specifying that "a rail carrier providing transportation subject to the jurisdiction of the Board under this part may establish any rate for transportation or other service provided by the rail carrier." 49 U.S.C. § 10701(c). The statute gives the Board jurisdiction to review the rates that have been set by the defendant, not some fictional substitute for those rates. 49 U.S.C. § 10702. The Board cannot disregard the rates at issue just because WFA/Basin claim that the railroad defendant had a "regulatory incentive" to set the rates at levels that exceed a reasonable maximum rate. Indeed, the question whether the challenged rates are excessive is the very question that is at issue in the case.

Even if the Board were not bound by statute to accept the rate established by BNSF as the rate whose reasonableness is being tested, there is no objective reason to doubt that the rate established by BNSF is commercially reasonable when considered in light of objective market factors. As noted above, Professor Kalt provided on opening a detailed critique of WFA/Basin's public pronouncements that BNSF had acted unreasonably in increasing rates upon the expiration of the prior contract. He pointed out that a significant increase in rates was warranted by, among other things, the high and increasing demand for PRB coal; the increasingly constrained rail capacity and associated tight supply-demand balance in the transportation of

PRB coal; the favorable position of Basin's Laramie River plant in the electric power market; and the positive financial performance of Basin that allowed it to provide \$140 million in credits to its members over a five-year period. Professor Kalt further explained that the commercial reasonableness of the challenged rates could not properly be judged by reference to the rates in the expired contract because that contract had been in effect for 20 years and had resulted from a settlement of major legal claims, including antitrust allegations. Professor Kalt explains in Section IV of this Rebuttal Narrative that WFA/Basin have provided no market-related evidence to rebut BNSF's showing that it was commercially rational for BNSF to increase the Laramie River rates substantially over the level of the expiring contract rates.

WFA/Basin urge the Board to discount Professor Kalt's market-related evidence altogether as "a side-bar exercise designed to divert the Board's attention" from BNSF's regulatory motivations.⁷ But an examination of the subjective intent of a railroad in establishing common carrier rates for a shipper has no place in a SAC analysis. In contrast to WFA/Basin's speculation regarding BNSF's regulatory motivation, BNSF's commercial witness has identified the commercial factors that led BNSF to set the challenged rates. Specifically, Mr. Brautovich, BNSF Assistant Vice President of Coal Marketing West, testified that prior to setting the common carrier rates, BNSF reviewed public information regarding Laramie River's position in the marketplace, including comparisons of Laramie River's delivered cost of coal, production costs, and capacity factor percentage to those same statistics for other coal-fired plants with which Laramie River competes.⁸ As shown in documents produced by BNSF to WFA/Basin during discovery, these analyses demonstrated that Laramie River was doing extremely well in

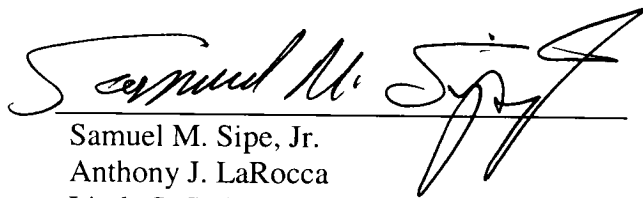
⁷ *Id.* at I-6 to I-7.

⁸ Verified Statement of Robert Brautovich at 3-4 (hereafter "Brautovich Reply VS"), included as BNSF Reply Exh. III.A-5.

comparison to those other coal-fired plants and that an increase in the rates would not affect the competitiveness of the Laramie River plant.⁹ Mr. Brautovich also testified that BNSF considered Laramie River's strong financial condition as well as the high demand for PRB coal transportation services in establishing the Laramie River common carrier rates.¹⁰

In short, there is substantial evidence showing that the challenged rates made commercial sense and reflected market conditions in effect at the time they were established. WFA/Basin's speculations about "regulatory incentive" are irrelevant and should have no impact on the Board's SAC analysis.

Respectfully submitted,



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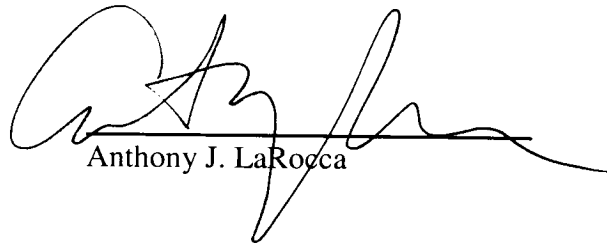
⁹ Thus, contrary to WFA/Basin's claims (*see* WFA/Basin Reply at I-6, n. 28, IV-2 to IV-3), BNSF produced the substantive analyses undertaken by BNSF management to assist in the determination of the appropriate common carrier rates to establish for the Laramie River movements.

¹⁰ Brautovich Reply VS at 3, 5. In addition, Mr. Brautovich responded to WFA/Basin's claim that the fuel surcharge and the three-year phase-in of the rate increase amount to an "unreasonable practice." Mr. Brautovich showed that the fuel surcharge was a commercially reasonable means of dealing with extreme volatility in the fuel market, and that the three-year phase in of the increase, which is consistent with the phasing constraint in the *Guidelines*, was a reasonable approach to avoiding possible dislocations for WFA/Basin. BNSF Reply Nar. at III.A-27 to III.A-29.

CERTIFICATE OF SERVICE

I hereby certify that this 30th day of September, 2005, I have served six copies of the foregoing Rebuttal Evidence and Argument of BNSF Railway Company (Highly Confidential) and three copies of the Public Version to the following by hand delivery:

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II. MARKET DOMINANCE

A. QUANTITATIVE EVIDENCE

1. Variable Costs

BNSF filed opening and reply market dominance evidence in this proceeding on April 19, 2005 and July 20, 2005, respectively. In that evidence, BNSF presented the variable cost of service for moving coal from Eagle Butte, Dry Fork, Caballo Rojo, Cordero, and Jacobs Ranch mines in the PRB to WFA/Basin's Laramie River Plant near Moba, Wyoming in the Fourth Quarter of 2004. In order to calculate variable costs, BNSF's principal variable cost witnesses, Benton V. Fisher and Deborah Newland, relied upon 2004 BNSF URCS unit costs and, where appropriate, adjusted URCS system-average costs consistent with the results of movement-specific studies. BNSF's Reply Evidence showed Fourth Quarter 2004 variable costs ranging between \$1.73 and \$2.10 per net ton, depending upon the origin mine, resulting in revenue-to-variable cost ("R/VC") ratios between 3.21 and 3.61. In this Rebuttal Evidence, BNSF corrects a minor error in its calculation of fuel consumption. The correction has a negligible impact on Fourth Quarter 2004 variable costs and produces R/VC ratios between 3.20 and 3.61.

WFA/Basin also filed opening and reply variable cost evidence on April 19, 2005 and July 20, 2005, respectively. That evidence was sponsored by L.E. Peabody Vice President Joseph J. Plaistow. WFA/Basin's variable cost evidence was also based on a 2004 BNSF URCS. WFA/Basin's reply presented Fourth Quarter 2004 variable costs ranging between \$1.22 and \$1.47 per net ton, with R/VC ratios between 4.57 and 5.12.

Both parties incorporated in their Reply Evidence the various traffic and operating characteristics agreed to at the *Ex Parte No. 638* Technical Conference, narrowing the

differences between the parties. BNSF further narrowed the differences between the parties on reply by accepting WFA/Basin's evidence or approach on the following cost items:

- Carload Handling – Other
- Train-Mile Expense – Crew¹

BNSF also accepted WFA/Basin's inclusion of the fuel surcharge for purposes of calculating the R/VC ratios.

There are a number of issues and cost items on which the parties continue to disagree. However, since BNSF adequately addressed these issues on reply and WFA/Basin presented no new evidence or argument on them in their Reply Evidence, BNSF does not address those issues here. These issues include,

- Origin and Destination Loop Track Expenses
- Road Property Ownership
- Maintenance-of-Way
- Locomotive Maintenance
- Joint Facilities
- Development of BNSF 2004 URCS
- URCS Linking Factor
- Train Mile Expense - Other Than Crew
- Loss and Damage
- Third Party Loading and Unloading Expense
- User Responsibility for Freight Car Repairs

¹ BNSF adjusted WFA/Basin's crew wage evidence to exclude loading crew costs in order to avoid a potential double-count in the system-average switching costs.

- Indexing

In this Rebuttal Evidence, BNSF addresses the following three cost items for which WFA/Basin presented new evidence and/or argument in their Reply Evidence:

- Switching
- Fuel
- Locomotive Ownership

BNSF's Rebuttal Evidence is sponsored primarily by Mr. Fisher and Ms. Newland. John M. Quilty, BNSF's Assistant Vice President of Operation Practices, sponsors evidence relating to fuel consumption by Laramie River trains and BNSF's use of fuel consumption data in the ordinary course of business. B. Scott Castleberry, BNSF's Director Regulatory Cost also sponsors evidence relating to Laramie River train operations.

BNSF Rebuttal Exhibit II.A-1 compares the parties' cost estimates for all shipments that moved in Fourth Quarter 2004. Exhibit II.A-1 also presents these costs by individual cost components. BNSF Rebuttal Exhibit II.A-2 compares the traffic and operating characteristics for the issue traffic that BNSF used to develop variable costs for the Fourth Quarter 2004 with those used by WFA/Basin in its Reply Evidence. BNSF Rebuttal Exhibit II.A-3 identifies the source of differences between the parties on specific cost categories.

a. Switching

On opening and again on reply, BNSF explained that there are clearly yard and road switching activities associated with the Laramie River trains, but it is not possible to quantify the amount of such activities. In the absence of data that would permit the Board to make a

movement-specific adjustment, BNSF used URCS system-average switching costs to develop variable costs for the issue move.² WFA/Basin, in their Opening Evidence, included no switching costs based on the erroneous claim that there are no switching activities associated with the Laramie River trains. On reply, WFA/Basin modified their switching calculations. WFA/Basin continue to disregard yard switching costs entirely. However, as to road switching, WFA/Basin now concede that there are road switching activities associated with Laramie River trains, and they concede that there are insufficient data available to quantify those switching activities.³ But, rather than use URCS system-average road switching costs to develop variable costs due to the unavailability of movement-specific data, WFA/Basin use switching assumptions from a prior rate case that are totally unrelated to the switching activities associated with Laramie River trains.⁴ WFA/Basin's road switching evidence is nothing more than a shot in the dark and underscores the fact that there are insufficient data available to develop movement-specific switching costs.

i. Switching Expense - Road

To develop road switching costs for the Laramie River trains, WFA/Basin started by selecting the 55 minutes of switching activity that BNSF determined, in a special study carried out for the *Xcel* case, is performed on average by BNSF road crews on each Xcel train at the Pawnee plant.⁵ The 55 minutes accounted for switching a locomotive from the rear to the head-end of the train for the return trip to the mine and for switching bad order cars. WFA/Basin

² BNSF Reply Nar. at II-9.

³ WFA/Basin Reply Nar. at II-A-5.

⁴ *Id.* at II-A-5 n.12.

⁵ *Xcel*, at 128-29.

assume without explanation that the 55 minutes of road switching activity observed at Pawnee is a valid proxy for the locomotive change-outs that are performed en-route on Laramie River trains. WFA/Basin then reduced the 55 minutes per train purportedly to reflect the frequency of locomotive change-outs on the Laramie River trains.⁶

There is no reasonable basis -- and WFA/Basin have presented none -- on which to expect that the time that it takes to perform road switching activities on the Xcel train at the Pawnee plant would be similar to the time that it takes to perform road switching activities on Laramie River trains en route. Indeed, there are numerous, obvious, and critical differences between the switching activities observed in BNSF's special study of switching at the Pawnee plant and the en route switching activities associated with the Laramie River train. On the Xcel train, BNSF crews switch a single locomotive from the rear to the head-end of the train. By contrast, changing-out the locomotives on the Laramie River train involves considerably more switching activity. Typically, a freshly serviced locomotive that is to power the Laramie River train must be brought to a point on the Laramie River route, switched out of the train on which it arrives, and set out to wait for the Laramie River train.⁷ When the Laramie River train arrives at the rendezvous point, the crew switches a locomotive out of the Laramie River train and switches in the waiting locomotive. Finally, the locomotive that was switched out of the Laramie River train is switched in to a passing train and taken to a yard for servicing and inspection. These switching activities occur on BNSF's mainline and sidings in the congested PRB, not on the private tracks of a plant. Thus, the time associated with switching activities at Pawnee is clearly

⁶ WFA/Basin understated by half the frequency of locomotive change-outs by using the change-out frequency per one-way trip. WFA/Basin Reply electronic workpaper "3Q2004 Loco Change Out.xls."

⁷ BNSF Rebuttal electronic workpaper "Moba power swaps.pdf" (E-mail from James S. Mikel, BNSF's Terminal Manager, Guernsey, WY).

not an appropriate proxy for the en route switching activities performed for the Laramie River service.

WFA/Basin also understate BNSF's costs by including no road switching costs for the activities performed at the Laramie River plant. Although BNSF pays QRS crews to perform switching activities at the plant, those activities are performed using BNSF's road locomotives. WFA/Basin ignore these locomotive operating costs on the fanciful and wholly unsupported assumption that BNSF is reimbursed by QRS for the use of its locomotives.⁸ QRS does not reimburse BNSF for its use of BNSF locomotives to perform switching activities at the Laramie River plant. Rather, the costs of operating and maintaining the locomotives are borne entirely by BNSF.⁹ Moreover, since the Laramie River trains are among BNSF's longest unit coal trains and, unlike most unit-coal train moves, the vast majority of bad-order car switching on Laramie River trains is performed at the plant, the switching activities performed at the plant are substantial. By improperly disregarding the switching activities performed at the Laramie River plant and the corresponding locomotive costs, WFA/Basin further understate BNSF's actual variable costs of service.

ii. Yard Switching Expenses

WFA/Basin continue to include no yard switching costs on the ground that Laramie River trains do not pass through a yard.¹⁰ As BNSF explained on reply, the fact that Laramie River trains do not pass through a yard is irrelevant. The locomotives that are used on Laramie River

⁸ WFA/Basin Reply Nar. at II-A-6.

⁹ BNSF Rebuttal electronic workpaper "QRS.pdf" (E-mail from Timothy Crilly, BNSF's Superintendent - Field Operations - Mechanical Department in Alliance, NE)

¹⁰ WFA/Basin Reply Nar. at II-A-4.

trains are routinely serviced in either the Guernsey Yard or the Alliance Yard.¹¹ When a locomotive that was used in Laramie River service arrives in a yard, it must be switched out of the train on which it arrived, moved to the locomotive inspection, servicing and fueling tracks, moved in to and out of the shop, and moved to the ready tracks. Locomotives bound for service on the Laramie River train must be switched on to a train that will take them from the yard to the Laramie River route to wait for the Laramie River train. WFA/Basin totally ignore these yard activities.

By including no yard switching costs, WFA/Basin include no yard ownership costs in their variable costs for the Laramie River movement. Since BNSF's yard facilities support Laramie River train operations, by providing fuel, locomotive service, and crews, among other costs, it is clearly appropriate to allocate some yard ownership costs to variable costs for the Laramie River move. WFA/Basin's approach allocates no yard costs, and therefore it substantially understates variable costs for the issue move.

b. Fuel

The parties continue to disagree on fuel consumption for Laramie River trains and the cost per gallon of fuel for purposes of calculating variable costs. These issues are discussed below.

i. Fuel Consumption For Laramie River Trains

In BNSF's Opening Evidence, Mr. Fisher and Ms. Newland developed fuel costs based on data maintained by BNSF in the ordinary course of business that show actual fuel

¹¹ BNSF Reply Nar. at II-7.

consumption for Laramie River trains. These data are produced by BNSF's Fuel Burn Model, which consists of computer programs that use various real-time operating data to calculate the amount of fuel consumed on BNSF trains. BNSF's data show that Laramie River trains consume fuel well above BNSF's system-average fuel consumption rate. On reply and in this submission, BNSF continues to rely on its Fuel Burn Model to determine fuel consumption.

In their Opening and Reply Evidence, WFA/Basin use BNSF's system-average fuel consumption in developing variable costs. On opening, WFA/Basin challenged BNSF's Fuel Burn Model data as unreliable. In response to WFA/Basin's criticisms of the Fuel Burn Model data in their Opening Evidence, BNSF submitted in its Reply Evidence a special study of fuel consumption based on QRS's fuel meter tickets for Laramie River trains that were produced to WFA/Basin in discovery. That study, which included 237 Laramie River trains, produced results that are remarkably close to the Fuel Burn Model fuel consumption data.¹²

In their Reply Evidence, WFA/Basin make several new criticisms of BNSF's Fuel Burn Model data, including the following:

- BNSF's data should be disregarded because they were generated by an unsupported special study;
- BNSF's calculations used event recorder data from AC4400s only, while Laramie River trains predominantly use SD70MACs;
- BNSF's calculations are based on data from only one locomotive in each train;
- The trains for which data are available are unlikely to be representative of most Laramie River trains moving in the period for which data were available;

¹² BNSF Reply Nar. at II-18 to 19; BNSF Reply electronic workpaper "Moba Fuel Tkts v Event Recd Compare.xls."

- The fuel consumption data are unreliable because they show widely ranging fuel consumption for the same O-D pairs;
- There is a discrepancy between burn and actual trip times;
- BNSF's fuel consumption rate table is unsupported; and
- BNSF's fuel burn adjustments are not documented.¹³

As BNSF demonstrates below, WFA/Basin's criticisms are not valid. BNSF's fuel consumption data accurately reflect the fuel consumed on the issue traffic trains.

¹³ WFA/Basin Reply Exhibit II-A-1.

(a) BNSF's Fuel Consumption Data Are Generated in the Ordinary Course of Business and Are Not a Special Study

WFA/Basin argue that BNSF's fuel consumption data are the product of a special study and should not be admitted as evidence because BNSF failed to meet the standards for admissibility for special studies. Specifically, WFA/Basin complain that BNSF failed to produce the raw data and computer programs necessary for WFA/Basin to verify the so called "special study" results. In fact, BNSF produced all data on which it relied to calculate fuel consumption in the Laramie River trains. Those data were not the product of a special study but instead came directly from databases maintained by BNSF in the ordinary course of business. In effect, WFA/Basin are arguing that data maintained in the ordinary course of business by a defendant cannot be used in the variable costs calculations unless the underlying raw data and computer models used to produce the data are made available to the complainant. The Board has never established such a requirement, which, if accepted, would potentially result in a massive expansion of discovery in a SAC case.

The fundamental flaw in WFA/Basin's argument is that the fuel consumption data are maintained and used by BNSF in the ordinary course of business. BNSF explained this to WFA/Basin when it produced the fuel consumption data and then again on opening, but WFA/Basin have chosen to ignore BNSF's explanation.¹⁴ The raw data used to produce the fuel consumption results were not gathered for this or any other litigation. As explained on opening, BNSF recently developed a series of computer programs and processes that automatically collect locomotive event recorder data from thousands of trains across BNSF's system, match the data with operating and mechanical data, and calculate fuel consumption by locomotive and segment.

¹⁴ BNSF Opening Nar. at II-12 to 15.

BNSF relies on these data in the ordinary course of business to assess its engineers' operating performance, among other uses. John M. Quilty, BNSF's Assistant Vice President of Operation Practices, explains that BNSF has also recently began using this data to make strategic decisions regarding where and when to fuel locomotives.

There are important distinctions between a party's use of a special study performed for purposes of litigation and its use of data that are generated in the ordinary course of business in the presentation of evidence. When a special study is performed, the underlying data are typically collected and organized for purposes of generating the study results. As a result, no special discovery burdens are imposed to produce the data. By contrast, when a report is generated in the ordinary course of business, the underlying data are generally accessed and analyzed by internal programs, but are generally not collected or saved. This is true of the Fuel Burn Model, which accesses and analyzes the underlying data on BNSF's TSS system and other databases in real-time but does not create a separate record of all the underlying data. Indeed, the creation of a new dataset for each locomotive event recorder download would take up considerable computer space, and it would serve no valid business purpose. Since BNSF does not assemble the raw data in the ordinary course of business, producing it would be enormously burdensome.

Moreover, special studies performed for litigation purposes raise issues of reliability not generally associated with data that are generated and relied upon in the ordinary course of business. The fact that the data are relied upon by the business is recognized as an indica of

reliability and accuracy. This recognition underpins the federal evidentiary preference, which the Board follows, for data that are generated in the ordinary course of business.¹⁵

WFA/Basin try to cast doubt on the validity of the Fuel Burn Model by making comparisons to the fuel consumption study protocols followed in the *TMPA* and *Xcel* rate cases. As WFA/Basin acknowledge, the study parameters in *TMPA* and *Xcel* were agreed to by the parties ahead of time, and they included an agreement as to collection and sharing of raw data so that each party could perform its own analyses of the data.¹⁶ Moreover, at the time those studies were performed, BNSF had not yet developed a wireless system for automatically collecting the locomotive event recorder data. Therefore, it was necessary to collect manually the event recorder data from each study train and separately to maintain such data as part of the special study data set. These protocols are no longer necessary. Also, since BNSF had not developed a set of programs at the time of the *TMPA* and *Xcel* studies that automatically analyze the event recorder data and match them with other mechanical and operating data, these tasks had to be performed separately for each locomotive to determine fuel consumption for each study train. As discussed above, however, these steps have all been automated and they are now performed for thousands of moves on BNSF's system for use in making business decisions.

¹⁵ See, e.g., *Carolina Power & Light Co. v. Norfolk Southern Rwy. Co.*, STB Docket No. 42072, at 14 (served December 23, 2003) ("Evidence that was prepared in the ordinary course of business is generally preferred over evidence developed specifically for litigation").

¹⁶ Ultimately, *Xcel* declined to pursue a joint fuel consumption study of the *Xcel* move. Nevertheless, BNSF performed its own special study of the *Xcel* move and produced the supporting data in accordance with the protocol established in *TMPA*.

(b) The Fact That BNSF's Fuel Burn Model Uses Data From AC4400 Locomotives Does Not Undermine the Relevance of the Data

WFA/Basin criticize BNSF's fuel consumption data because they are based on locomotive event recorder data that are downloaded from AC4400 model locomotives, which account for the great majority of BNSF locomotives capable of wireless transmission of event recorder data. According to WFA/Basin, the locomotives used in the issue traffic service predominantly are SD70MACs but there are no data from those locomotives. This criticism is based on a misunderstanding of the Fuel Burn Model.

The Fuel Burn Model calculates fuel consumption based on the amount of time each locomotive in a train is in a particular throttle position. As Mr. Quilty explains, the locomotives in the Laramie River consist are linked so that the engineer controls all units from the lead unit. When the engineer changes throttle positions on the lead unit, the throttle position automatically changes on all the other units in the consist. As a result, all units in the consist are generally in the same throttle position regardless of whether the unit is an SD70MAC or an AC4400.¹⁷ Thus, the time in each throttle position as recorded by an AC4400 locomotive event recorder will accurately reflect the time that each locomotive in the consist, including SD70MAC locomotives, is in that throttle position.

¹⁷ Units may not be in the same throttle position if one of the units has been isolated, *i.e.*, is not contributing tractive effort. The Fuel Burn Model, however, automatically verifies whether each unit in a consist contributed tractive effort using the locomotive event and mechanical data.

(c) The Fact that Data Were Obtained From a Single Locomotive on Each Train Does Not Undermine the Validity of the Data

WFA/Basin next criticize BNSF's fuel consumption data because they are based on locomotive event recorder data downloaded from one locomotive on each train. According to WFA/Basin, it is inappropriate to assume that all locomotives operate in the same throttle position for the same amount of time because such an assumption fails to reflect the fact that a locomotive may be isolated from the remaining locomotives in the consist and idling instead of contributing tractive power. This criticism is a red herring.

As BNSF explained on opening and in greater detail in response to a WFA/Basin workpaper request, the Fuel Burn Model adjusts automatically for locomotives that are not contributing tractive effort.¹⁸ The Fuel Burn Model automatically determines whether a locomotive was contributing tractive effort by matching the locomotive identification, date, and time against BNSF's operating and mechanical databases. If a unit is assigned an LO (locomotive) event code that indicates that the unit was isolated (IC), shutdown (SC), or in dynamic brake (DB), then the Fuel Burn Model zeroes out the fuel consumption for that unit for the time in which the unit was isolated or shutdown. If the LO event code is DB, the fuel consumption for that locomotive is developed using the dynamic brake burn rate for the time in which the unit was operating in dynamic brake mode.

There are numerous instances in the Fuel Burn Model data produced to WFA/Basin in discovery in which an adjustment was automatically made by the Fuel Burn Model to reflect the fact that a unit was not contributing tractive effort.¹⁹ However, it is clear from the data that no

¹⁸ BNSF Rebuttal electronic workpaper "BNSF July 1 Response.pdf."

¹⁹ BNSF Rebuttal electronic workpaper. "Zero Gal Burned Examples.xls."

units were isolated on the Laramie River trains used to calculate fuel consumption for purposes of the variable cost calculation.

(d) The Data Used By BNSF Produce Results That Are Representative of the Issue Traffic Movements.

WFA/Basin complain that BNSF has not provided any evidence that the trains for which Fuel Burn Model data were available are representative of Laramie River trains in general. They further speculate that the Fuel Burn Model trains are “unlikely to be representative” of Laramie River trains moving in the relevant time period because they include an AC4400 in the consist, and most Laramie River trains are powered exclusively by SD70MACs. These criticisms are misplaced.

On reply, BNSF demonstrated that the Fuel Burn Model produces fuel consumption results that are clearly representative of the fuel consumed on Laramie River trains. BNSF presented a special study of Laramie River train fuel consumption using QRS fuel meter tickets. That study included 237 Laramie River trains and produced results that were remarkably close to the fuel consumption calculated by the Fuel Burn Model. *See* BNSF’s Reply Table II.A-6.

The QRS fuel meter ticket study also showed that the fuel consumed by Laramie River trains that are powered by a consist that includes an AC4400 unit is representative of the fuel consumed by trains powered exclusively by SD70MACs. Indeed, BNSF’s fuel meter study data show that trains that included an AC4400 consumed very nearly the same quantity of fuel as trains powered exclusively by SD70MACs. Of the 237 trains in the fuel meter study, 186 were powered exclusively by SD70MACs. As Table II.A-1 below shows, the trains powered exclusively by SD70MACs consumed on average 5,746 gallons while trains that were operated

with an AC4400 in the consist consumed on average 5,704 gallons. The difference is less than one percent.

Table II.A-1
Average Fuel Consumption for Laramie River Trains Powered Exclusively by
SD70MACs and Laramie River Trains Powered by Mix of SD70MAC and AC4400
Locomotives²⁰

	All Trains With Fuel Data		Trains with SD70MACs Only		Trains with SD70MACs and AC4400Cs	
Mine	Count	Avg Gal/Tmn	Count	Avg Gal/Tmn	Count	Avg Gal/Tmn
Cordero	44	5,156	35	5,261	9	4,748
Dry Fork	87	6,155	57	6,276	30	5,925
Eagle Butte	56	6,134	48	6,135	8	6,125
Jacobs Ranch	2	4,900	2	4,900	0	0
Caballo Rojo	48	5,083	44	5,059	4	5,350
Weighted Average	237	5,737	186	5,746	51	5,704

These results are consistent with the fuel consumption study that was accepted by the Board in *Xcel*. In that study, 10 of the 31 study trains were powered by locomotives that included one or more non-SD70MAC locomotives. As shown in Table II.A-2 below, the average fuel consumption for all 31 study trains is nearly the same as the average fuel consumption for the 21 trains in the fuel study with locomotive consists comprised exclusively of SD70MAC locomotives.

²⁰ BNSF Rebuttal electronic workpaper “Moba Fuel Tkts - 4 SD70MAC Locos v 4 Unit Mix Comparison.xls,” worksheet “Event Data.”

Table II.A-2
Comparison of Average Fuel Consumption in Gallons
For All Xcel Fuel Study Trains to Fuel Study Trains
Powered by SD70MAC Locomotives²¹

	All Fuel Study Trains	SD70MAC Study Trains	Percentage Difference
Average Fuel Consumption In Gallons per Train	8830	8873	+0.5%

- (e) The Differences in Fuel Consumption Results for the Same O-D Pairs Are The Consequence of Different Operating Conditions

WFA/Basin criticize the Fuel Burn Model fuel consumption data because, in some instances, the fuel consumption for two different trains moving between the same O-D pair vary widely. In their Table 1 to their Reply Exhibit II-A-1, WFA/Basin identify the ranges between the minimum and maximum fuel consumption observed each way for five O-D pairs. In fact, WFA/Basin's Table 1 shows fuel consumption ranges for most O-D pairs that are a few hundred gallons or less. Of the ten ranges listed, three are less than 63 gallons (within 2 percent of the average fuel consumption for those O-D pairs); four are between 172 and 267 gallons (within 8 percent of the average fuel consumption for those O-D pairs); two are between 393 and 419 gallons (within 6 percent of the average fuel consumption for those O-D pairs); and one is over a thousand gallons. But the fact that fuel consumption for moves between the same O-D pairs varies should come as no surprise. It is precisely because fuel consumption can vary widely based on operating conditions, that BNSF went to the trouble and expense of developing the Fuel Burn Model which BNSF now uses as a tool for assessing fuel consumption on specific trains and for achieving more fuel-efficient train operations.

²¹ BNSF Rebuttal electronic workpaper "Xcel Fuel Sensitivities.123."

Mr. Quilty explains that there are a number of factors that can dramatically affect fuel consumption. These include engineer handling practices, traffic congestion, track outages, and weather conditions. In addition, delays at the plant may lead to increased fuel consumption.

The Laramie River route, though relatively short, traverses BNSF's densest line segments. Congestion and delays on the route are common and, consequently, the transit times experienced by the Laramie River train are wide ranging. Transit time from the mine to the utility can take fewer than 6 hours under optimal conditions or more than 30 hours under adverse conditions.²² While there is not a direct correlation between transit time and fuel consumption, it is reasonable to expect that the fuel consumed by a Laramie River train that makes the trip in 6 hours will vary markedly from that of a train that makes the trip in more than 30 hours. For example, just a ten-hour delay, during which the Laramie River train is parked, can result in the consumption of an additional 120 gallons of fuel consumption.²³

In fact, the movements that WFA/Basin identified as representing the high end of the fuel consumption range in each O-D pair were generally characterized by delays, longer transit times, and/or poor weather conditions. In each case, the higher fuel consumption calculated by the Fuel Burn Model (compared to the other movements for the same O-D pair) are reasonable in light of the operating characteristics and prevailing conditions at the time of the move.²⁴ A good example of this is the Jacobs Ranch loaded move (train CJRMMOL007), which WFA/Basin

²² BNSF Opening electronic workpaper "Cycle Time & LUM Summary.xls," tab "Cycle by Train."

²³ Generally, locomotives are left running on idled Laramie River trains, particularly in the winter months. Since SD70MAC locomotives consume fuel in idle at a rate of 3 gallons per hour, an idled Laramie River train with a four SD70MAC locomotive consist consumes 12 gallons per hour, or 120 gallons in 10 hours.

²⁴ BNSF Rebuttal electronic workpaper "Rebut-MOBA Event Recorder Fuel Burn Data.xls," tab "MOBA TRAINS."

identified as having consumed 1,390 more gallons than another loaded Jacobs Ranch train. The day that train CJRMMOL007 moved, November 28, 2004, ten inches of snow fell on the Laramie River route and the average temperature was 18 degrees.²⁵ As Mr. Quilty explains, weather conditions such as these wreak havoc with operations. Among other things, switches freeze up and malfunction, causing service interruptions and slow orders. It is particularly difficult for trains to maintain momentum approaching or climbing hills. Frequently, trains must start climbing a hill from a dead-stop. These types of stop-and-go operations require trains to remain in higher throttle positions for a longer amount of time, and consequently the trains consume substantially more fuel than a train operating under more ideal conditions. The data for the CJRMMOL007 train bear this out. The transit time was approximately nine hours longer than the transit time of the Laramie River train at the low-end of the consumption range.²⁶ Train CJRMMOL007 also spent more than an hour longer in throttle position 8, which accounts for approximately 75 percent of the difference between the two trains' fuel consumption.²⁷ In light of the prevailing operating conditions at the times, the wide range in consumption between the two Jacobs Ranch trains is not unreasonable.

(f) The Fact That Fuel Burn Times Do Not Precisely Equal Trip Times Is Irrelevant

WFA/Basin criticize BNSF's fuel consumption data because the trip times and the fuel burn times do not match precisely. Once again, this criticism reflects a misunderstanding of the

²⁵ BNSF Rebuttal electronic workpaper "historical weather.pdf."

²⁶ The comparison train representing the low end of the fuel consumption range moved two days earlier than CJMMOL0007 when the average temperature was above freezing. *Id.*

²⁷ BNSF Rebuttal electronic workpaper "Rebut-MOBA Event Recorder Fuel Burn Data.xls," tab "MOBA TRAINS."

Fuel Burn Model. The minor differences between the two data sets do not undermine the validity of the fuel consumption data.

There are valid reasons for the slight differences between the TSS data trip times and the fuel burn times. For example, the trip time and the fuel burn time measure different events. The trip time, which is calculated by the TSS system, typically measures the time between departure and arrival based on when the train passes an AEI reader or signal at the beginning and end of the segment. By contrast, the fuel burn time recorded by the locomotive event recorder generally begins when the train is at rest and is being prepared for departure, and the fuel burn time generally ends when the train has come to a complete stop at the end of the segment. Since the trip times are generally based on a moving train and the fuel burn times are generally based on a train at rest, the trip times and fuel burn times can differ.

In any event, the Fuel Burn Model data show a close match between the trip and fuel burn times for the Laramie River trains. For two-thirds of the Laramie River trains in BNSF's analysis of the Fuel Burn Model data, the fuel burn time and trip time were within two percent of each other and nearly half of the trains showed a difference of less than one percent.²⁸ These minor differences are to be expected and are irrelevant.

In a few instances the trip times and the fuel burn times significantly differed. As explained on opening, these disparities resulted from the fact that the event recorder data for the segments at issue had been recorded over with new data prior to download. Event recorders have a finite capacity. When a recorder reaches capacity, it records over old data. As shown in

²⁸ *Id.*

BNSF's opening workpapers, BNSF omitted from the fuel consumption calculations the segments for which the data appeared truncated.²⁹

(g) The Locomotive Fuel Consumption Rate Table Is Reliable

WFA/Basin criticize BNSF for not providing supporting evidence for the locomotive fuel consumption rate table that is used in BNSF's Fuel Burn Model. That rate table, however, is embedded in Wabtec's Autoscan program that is used in the Fuel Burn Model. The Wabtec program is a commercially available program, and its success in the market is a result of the confidence that purchasers like BNSF have in the validity of its underlying processes and assumptions, including the fuel burn assumptions. In any event, it is clear from a comparison with fuel burn tables used by BNSF in prior fuel consumption studies accepted by the Board that the fuel burn table in the Wabtec program is an accurate reflection of manufacturers' fuel burn rate assumptions.³⁰

(h) WFA/Basin Is Wrong That Fuel Burn Adjustments Are Not Documented

WFA/Basin allege that the adjustments to fuel consumption data, such as adjustments for locomotives in idle, are not properly reflected in the fuel consumption data. As BNSF explains above in section II.A.1.b.i.(c), this criticism is unfounded. When the Fuel Burn Model matches a locomotive on a Laramie River train with a locomotive event or defect code that indicates that the unit was not contributing tractive effort, it zeroes out fuel consumption for that unit. The fuel consumption data that BNSF produced to WFA/Basin clearly reflect numerous instances where

²⁹ BNSF Opening electronic workpaper "MOBA Event Recorder Fuel Burn Data.xls."

³⁰ BNSF Rebuttal electronic workpaper "Fuel Consumption Tables.xls."

the Fuel Burn Model eliminated fuel consumption for a locomotive in a consist that was not contributing tractive effort.³¹

(i) BNSF Misclassified A Train But A Correction Can Easily Be Made

WFA/Basin identified a minor error in BNSF's fuel consumption evidence; namely, that BNSF misclassified a Laramie River train originating at Caballo Rojo as originating at Cordero. In this rebuttal evidence, BNSF corrects this error.³²

ii. Fuel Price

WFA/Basin urge the Board to reject BNSF's location-specific prices because those prices do not include the effect of BNSF's fuel hedges. But it is appropriate to exclude the effect of hedging from the variable cost calculations. It is clear from BNSF's public descriptions of its hedging activity that the transactions at issue are based on sophisticated financial instruments that are not connected to any specific, physical purchase of fuel from individual fuel suppliers.³³ Indeed, as BNSF discloses in its Annual Report, BNSF's fuel hedges are based on reference commodities other than the diesel fuel used in BNSF's locomotives.³⁴ Therefore, the Board should use BNSF's location-specific fuel price data in calculating the variable cost of the issue

³¹ BNSF Rebuttal electronic workpaper "Zero Gal Burned Examples.xls."

³² The train WFA/Basin identified has been reclassified to the appropriate origin, and BNSF's Rebuttal workpapers and variable cost evidence incorporate this correction. BNSF Rebuttal electronic workpaper "Rebut-MOBA Event Recorder Fuel Burn Data.xls," tab "MOBA TRAINS."

³³ BNSF Rebuttal electronic workpaper "BNSF 2004 Annual Report.pdf" at 58.

³⁴ BNSF's hedging program is based on hedge contracts which reference West Texas Intermediate Crude and NYMEX #2 Heating Oil. The price fluctuations in those commodities are highly correlated to fluctuations in the price of diesel fuel. *Id.*

traffic, since those data reflect the amounts paid by BNSF for actual purchases of locomotive diesel fuel from fuel suppliers.

iii. Locomotive Ownership Expense

There are two areas of dispute in the calculation of locomotive ownership costs: (1) development of annual lease payment costs; and (2) development of the spare margin factor.³⁵

(a) Locomotive Lease Cost

The parties continue to disagree on the proper calculation of locomotive lease costs. BNSF uses the lease costs normalized over the life of the lease for the locomotives used in Laramie River service, weighted by hours in service. WFA/Basin also use movement-specific data but fail to normalize costs over the life of the lease. BNSF explained in its Reply Evidence that WFA/Basin's approach produces distorted results since three of the locomotives used in Laramie River service did not have any payment due until 2005. Under WFA/Basin's approach, these locomotives are treated as *free* in 2004 to BNSF and WFA/Basin include *no* costs for these three units in their variable cost calculations. However, as BNSF explained in its Reply Evidence, BNSF pays an amount into an accrual account based on the daily lease rental costs, *i.e.*, the normalized lease cost divided by the total lease days. Thus, while no payment may have been made to the lessor for these three locomotives in 2004, BNSF recorded lease costs for these locomotives in its accounting system in 2004 and reported these costs in the 2004 R-1.

In its Reply Evidence, BNSF also explained that for twenty units that WFA/Basin identified as having been used in Laramie River service, WFA/Basin calculated lease costs using

³⁵ See BNSF Reply Nar. at II-32 to 33; WFA/Basin Reply Nar. at II-A-63.

two different approaches. WFA/Basin calculated the annual lease cost for ten units by weighting each locomotive's 2004 lease payment by the number of hours in Laramie River service in Third Quarter 2004.³⁶ For the other ten units they identified, WFA/Basin claimed not to have been provided the actual lease data so they applied the average lease cost per locomotive hour that they calculated for the units for which they had data. Following the filing of Opening Evidence, BNSF provided WFA/Basin with the missing lease data and, in their Reply Evidence, WFA/Basin purported to modify their calculations to reflect the lease data for all twenty locomotives. However, WFA/Basin continue to include *zero* dollars in lease payments for three of the twenty locomotives, or nearly 20 percent of the locomotive hours.³⁷

(b) Spare Margin

The parties' different approaches to developing an appropriate spare margin represent the single largest source of differences in the calculation of locomotive ownership costs. As explained on opening, BNSF based its spare margin calculations on data relating to actual locomotive availability and utilization that BNSF provided to WFA/Basin in discovery.³⁸ This information indicated that BNSF's Alliance Pool SD70MACs are unavailable { } percent of the time and, when available, are not utilized an additional { } percent of the time.³⁹ As a result, BNSF calculated variable costs based on a composite spare margin of { } percent.⁴⁰ In

³⁶ WFA/Basin used 3Q 2004 traffic data to determine locomotive hours for calculation of locomotive ownership costs. WFA/Basin Opening electronic workpapers "3Q04 loco hrs by unit.xls" and "Loco Cap Moba 3Q04.xls," worksheet "Leased Locos."

³⁷ WFA/Basin Reply electronic workpaper "Loco Cap Moba 3Q04 Reply.xls."

³⁸ BNSF Opening Nar. at II-65.

³⁹ BNSF Opening electronic workpaper "Spare Margin.xls."

⁴⁰ *Id.*

their Opening Evidence, WFA/Basin relied on “availability guarantees” in BNSF’s locomotive maintenance contracts to develop their spare margin and incorrectly defined spare margin for use in variable cost calculations to exclude non-utilized time.⁴¹ BNSF addressed these arguments in its Reply Evidence and does not repeat that discussion here. In their Reply Evidence, however, WFA/Basin made the following additional criticisms of BNSF’s spare margin evidence:

- BNSF did not provide adequate support for its spare margin evidence;
- BNSF’s non-utilized time appears to include time that a locomotive is assigned to a train and therefore being utilized;
- BNSF’s non-utilized time might include a double count;
- BNSF’s unavailable time includes certain time assumptions that are never explained;
- BNSF’s formula for calculating spare margin is incorrect; and
- BNSF’s spare margin calculations fail to account for the fact that locomotives used on Laramie River trains are operated in a different manner than locomotives on other coal trains.⁴²

BNSF explains below that each of these criticisms is not valid.

(i) BNSF’s spare margin evidence is adequately supported.

WFA/Basin wrongly claim that BNSF has not provided adequate support for its spare-margin evidence. In developing BNSF’s spare margin evidence, BNSF relied upon locomotive availability and utilization reports that were produced to WFA/Basin in discovery. These reports, among other things, provide a detailed breakdown of the status of locomotives used in PRB coal service. Using these reports, BNSF witnesses calculated the percentage of unavailable

⁴¹ WFA/Basin Reply Nar. at II-A-71.

⁴² WFA/Basin Reply Exhibit II-A-2.

and unutilized time. BNSF witnesses used the same type of reports and followed the same approach that was accepted by the Board in *Xcel*. In that case, the Board described BNSF's spare margin evidence as a "well-supported study."⁴³

BNSF's evidence is based on its measure of the actual spare margin on which it operates its railroad and evaluates its performance. The availability and utilization reports produced to WFA/Basin in discovery are prepared by BNSF in the normal course of business. {

} BNSF also reviews the non-utilized margin to determine where power should be repositioned into alternative service to get better utilization out of its fleet. BNSF's calculations, based on actual data maintained by BNSF in the normal course of business, identify the appropriate amount of spare margin to be included in calculating locomotive ownership costs.

- (ii) BNSF's unutilized time properly accounts for time when a locomotive is available but not utilized.

WFA/Basin claim that BNSF improperly includes in the spare margin calculations the time following the release of a locomotive from the shop to when it "returns to a train." Implicit in WFA/Basin's criticism is that the locomotive has been assigned to a train during this time period and therefore is being utilized. However, once a locomotive is assigned to a train, it is treated in BNSF's data reports as utilized and is not included in the spare margin factor.⁴⁴

⁴³ *Xcel*, at 143.

⁴⁴ WFA/Basin Reply electronic workpaper "Explain.pdf." This workpaper replicates an electronic file BNSF produced in discovery.

(iii) BNSF's unutilized time does not duplicate hours.

WFA/Basin claim that the descriptions of different time categories “suggest the possibility of duplicating hours.”⁴⁵ According to WFA/Basin, three of the categories -- shop to train assignment, shop to consist build, and shop to train depart -- “appear to be a time progression.” WFA/Basin’s concern implies that BNSF reports three overlapping categories of time for each locomotive released from the shop. In fact, BNSF records only one of these three categories of time for each locomotive released from a shop. That is, a locomotive may be reported to either “shop to train assignment,” “shop to consist build,” or “shop to train depart,” but not to more than one. Once a locomotive is reported as either assigned to a train or put into a consist, all subsequent time is treated as utilized time. Thus, there is no duplication of time.

(iv) BNSF's unavailable time calculations are not defective

WFA/Basin suggest that BNSF’s measure of unavailable time suffers from defects because it includes time associated with a category -- “Unavailable Other” -- that allegedly is never explained. In fact, BNSF explained in discovery and again in its workpapers that this category accounts for time when locomotives are in a “horsepower limiting defect status.”⁴⁶ This time was properly included in the unavailable time calculations. Moreover, BNSF included this time category in its *Xcel* locomotive spare margin study that was accepted by the Board.

(v) BNSF correctly calculates spare margin as an additive to total locomotive available time.

WFA/Basin criticize BNSF’s “formula” for calculating its spare margin. Specifically, WFA/Basin claim that BNSF should have calculated the spare margin based on total locomotive

⁴⁵ WFA/Basin Reply Exhibit II-A-2 at 3.

⁴⁶ See WFA/Basin Reply electronic workpaper “Explain.pdf.”

hours, and not based on available hours only. BNSF's approach, however, has been accepted by the Board and is mathematically correct.⁴⁷

The fundamental flaw in WFA/Basin's approach is that it ignores the fact that the spare margin factor is applied to the issue traffic's cycle time, *i.e.*, the available/utilized locomotive hours.⁴⁸ Since the spare margin factor is applied only to available/utilized time, the factor must be calculated as a percentage of available/utilized time. Otherwise the result will understate the total locomotive costs attributable to Laramie River service. This can be demonstrated with WFA/Basin's own simplified example from page 6 of their Reply Exhibit II-A-2.

WFA/Basin assume that total locomotive hours are 1000, total available/utilized hours are 900, and total unavailable/unutilized hours are 100. Under BNSF's approach, the spare margin would be $100/900$, or 11.1 percent. When this 11.1 percent factor is applied to the total available hours, the result gets back to the 1000 total locomotive hours ($900 + (11.1\% * 900)$). Thus, under BNSF's approach, all locomotive hours are properly accounted, and BNSF's locomotive costs are recovered.⁴⁹ Under WFA/Basin's approach, the spare margin factor would be $100/1000$, or 10 percent. But when a 10 percent spare margin factor is applied to the 900 available/utilized hours, the result is only 990 hours ($900 + (10\% * 900)$), short of the 1000 total locomotive hours. WFA/Basin's approach clearly understates total costs, is mathematically flawed, is inconsistent with Board precedent, and should be rejected.

⁴⁷ *Xcel*, at 143.

⁴⁸ WFA/Basin Reply electronic workpaper "VC WFA 2004 Reply.123," tab "P."

⁴⁹ Further, to develop the spare locomotives requirements for their stand-alone railroad, WFA/Basin calculate the factor as a percentage of available time only, and not total available and unavailable time. See WFA/Basin Opening electronic workpaper "loco utilization revised.xls," tab "1003-0904."

- (vi) The fact that Laramie River trains are operated in a different manner from other PRB trains does not undermine the applicability of BNSF's spare margin evidence.

WFA/Basin further argue that because Laramie River trains do not pass through a yard it is improper to apply to the Laramie River service a spare margin that includes yard idle time. One flaw in Laramie River's argument is that while the Laramie River trains do not pass through a yard, the locomotives that power those trains certainly do. In fact, with four locomotives on each train, three Laramie River trains in service, and locomotive change-outs occurring at least every 4.6 round trips, locomotives used on Laramie River trains are frequently serviced in BNSF's Guernsey and Alliance Yards. In addition to the yard idle time associated with the Laramie River movements, there is additional unutilized time associated with the Laramie River train precisely because it does not pass through a yard. In order to change out locomotives on the Laramie River train, BNSF must pre-position freshly serviced locomotives along the route to be changed into the Laramie River consist.⁵⁰ Waiting time associated with these locomotives is recorded as unutilized time.⁵¹ Similarly, there is unutilized time associated with the locomotives that were changed out of the Laramie River train, since those locomotives often must wait to be transported to a yard. There are simply no grounds on which to conclude that Laramie River trains experience utilization rates that are less than other unit coal trains that pass through the Guernsey or Alliance Yard.

⁵⁰ BNSF Rebuttal electronic workpaper "Moba power swaps.pdf" (E-mail from James S. Mikel, BNSF's Terminal Manager, Guernsey, WY).

⁵¹ WFA/Basin Reply electronic workpaper "Explain.pdf."

2. Restatement of Variable Costs and Summary

As described above, BNSF made a minor correction to its variable costs estimates for Fourth Quarter 2004. Table II.A-3 below shows the results. Exhibit II.A-1 presents the variable costs for each component by origin mine for movements under the challenged rate. BNSF electronic workpapers contain the detailed calculations.⁵²

Table II.A-3
Summary of Variable Costs and R/VC Ratios

Origin	Rate/Ton	Variable Cost/Ton	Revenue to Variable Cost Ratio
Northern PRB			
Dry Fork	\$6.71	\$2.05	328%
Eagle Butte	\$6.72	\$2.10	320%
Central PRB			
Caballo Rojo	\$6.53	\$1.86	352%
Cordero	\$6.48	\$1.84	353%
Southern PRB			
Jacobs Ranch	\$6.25	\$1.73	361%

⁵² BNSF Rebuttal electronic workpaper “BNSF Moba Rebuttal Prg.123.”

IV. OTHER EVIDENCE -- THE COMMERCIAL REASONABLENESS OF THE CHALLENGED RATES

Professor Kalt was asked by the BNSF Railway Company (“BNSF”) to respond to the reply evidence of the complainants in this proceeding, Western Fuels Association, Inc. (“WFA”) and Basin Electric Power Cooperative, Inc. (“Basin”) regarding the commercial reasonableness of the common carrier rates established by BNSF for the Laramie River movement. Joseph P. Kalt is the Ford Foundation Professor of International Political Economy at the John F. Kennedy School of Government, Harvard University. He previously submitted testimony in this proceeding on opening and reply, and his full curriculum vitae was provided in BNSF’s opening evidence filed on April 19, 2005.

In BNSF’s opening evidence, Professor Kalt responded to public comments that had been made by WFA/Basin, before they filed any evidence in this case, to the effect that the common carrier rates established by BNSF for the movement of coal from various mines in the Powder River Basin (“PRB”) to Laramie River Station in Wheatland, Wyoming, were unreasonable as a commercial matter. The thrust of WFA/Basin’s numerous comments was that it did not make commercial sense that BNSF had increased the rates significantly when the existing contract expired. WFA/Basin continues to characterize the rates it challenges as “outrageously high.”¹

Professor Kalt showed in his testimony on opening that WFA/Basin’s claims about the commercial unreasonableness of the challenged rates were unfounded. Specifically, he demonstrated that as a commercial matter, a significant increase in rates was warranted by, among other things, the high and increasing demand for PRB coal; the increasingly constrained rail capacity and associated tight supply-demand balance in the transportation of PRB coal; the favorable position of Basin’s Laramie River plant in the electric power market; and the positive

¹ WFA/Basin Reply Nar. at I-1.

financial performance of Basin that has allowed it to provide \$140 million in credits to its members over a five-year period.² Professor Kalt also showed that the commercial reasonableness of the rates at issue could not properly be judged by reference to the rates in the expired contract because that contract had been in effect for 20 years and had resulted from a settlement of major legal claims, including antitrust allegations.

In their reply evidence, WFA/Basin mischaracterize Professor Kalt's opening testimony, incorrectly asserting that his testimony sought to introduce a new maximum rate standard based on "what the traffic will bear."³ This is not correct. Professor Kalt's position on opening was that it was rational as a commercial matter for BNSF to increase substantially the rates for transportation to the Laramie River plant when the pre-existing 20-year contract expired. The fact that a substantial rate increase was commercially rational does not mean that the rate actually established by BNSF following contract expiration would necessarily satisfy the Stand Alone Cost ("SAC") test. The SAC evidence in this case is addressed to that question.

However, the fact that, in light of marketplace conditions, it was rational for BNSF to make a large rate increase *does* mean that the rates established by BNSF cannot be disregarded in the SAC analysis. WFA/Basin, however, urge the Board to ignore the actual rate established by BNSF in assessing the revenues that would be available to the Stand Alone Railroad ("SARR") from the issue traffic on grounds that the rate represented a large increase from the prior contract

² Basin Electric's 2003 Annual Report at 2. Note also that WFA/Basin distributed another \$10 million in credits to its members in 2004. *See* Basin Electric's 2004 Annual Report at 4. The 2003 Annual Report is included in BNSF's Rebuttal electronic workpapers as "Basin Electric, Annual Report, 2003.pdf". The 2004 Annual Report is included in BNSF's Rebuttal electronic workpapers as "Basin Electric, Annual Report, 2004.pdf".

³ WFA/Basin Reply Nar. at IV-10.

rates.⁴ By ignoring and misconstruing the commercial conditions surrounding BNSF's rate increase and by employing impressive hyperbole to portray nefarious motives they purport to have divined from decisions of BNSF management, WFA/Basin also urge the Board to ignore the actual rate as the starting point for establishing any prescribed rate. Moreover, WFA/Basin criticize Professor Kalt's opening testimony for not conducting an inquiry into the motivations of BNSF management re: changing the instant rate upon contract expiration.⁵ But it is inappropriate to focus on a subjective determination of managerial intent, particularly given the existence of objective factors justifying a significant rate increase. Railroads are supposed to have the freedom to set rates based on their assessment of the market, and the relevant question is not one of subjective intent. The question is whether there was commercial justification for the rate increase. As Professor Kalt showed on opening, there was; it was commercially rational for BNSF to set a rate for the issue traffic substantially above the prior contract rate. There is no reason for the Board to ignore the actual rate in carrying out the SAC test.

A. POWDER RIVER BASIN CAPACITY

A critical factor in Professor Kalt's assessment of the commercial reasonableness of the challenged rates is the increasingly tight rail capacity for the transportation of PRB coal. In markets where there is a tight supply of capacity relative to demand, prices can be expected to increase. Indeed, "reasonable" price movements are not solely downward in direction. In well-functioning markets, prices will appropriately rise when supply and demand conditions tighten. Such price movement signals to the economy – customer and supplier alike – where and when resources are scarce and in need of conservation by consumers and augmentation by producers.

⁴ WFA/Basin Reply Nar. at I-6 to I-7. *See also* WFA/Basin Opening Nar. at I-4 to I-5.

⁵ WFA/Basin Reply Nar. at I-6 to I-7, IV-2 to IV-3.

In response to Professor Kalt's findings regarding the evident recent tightening of rail capacity in the Powder River Basin, WFA/Basin make the surprising assertion that "the PRB corridor will continue *not* to be capacity constrained over the next 20 years."⁶ The AASHTO study (see below) that WFA/Basin cites as the basis for this claim does not, in fact, support this conclusion. Furthermore, trade press, shippers, investors, and individual Board members have all acknowledged the tightening of capacity in the PRB.

1. AASHTO Study

The bulk of WFA/Basin's conclusions regarding PRB capacity are accompanied by citations to a study performed by the American Association of State Highway and Transportation Officials ("AASHTO"), which the complainants claim contradicts Professor Kalt's findings about the tightening of capacity in the PRB.⁷ WFA/Basin portray the AASHTO study as concluding that "there are no significant rail capacity constraints" in the PRB.⁸ The AASHTO report does not support WFA/Basin's characterization.

First, the AASHTO report's analyses are based on data from an earlier time period than that addressed in Professor Kalt's testimony. Professor Kalt's statements about tight rail capacity in the face of growing demand for PRB coal refer to the latter part of 2004 and forward, the period during which BNSF and WFA were attempting to renegotiate their contract. The AASHTO report, in contrast, was published in January 2003 and draws its conclusion based primarily from the 2000 TRANSEARCH database. Yet, conditions in the PRB have clearly

⁶ WFA/Basin Reply Nar. at IV-9.

⁷ The study was published in January 2003 and is entitled "Transportation – Invest in America, Freight Rail Bottom Line Report" (hereinafter "AASHTO Report"). It was included as "FreightRailReport.pdf" in the electronic workpapers for Part IV of WFA/Basin's Reply Evidence.

⁸ WFA/Basin Reply Nar. at IV-9.

changed since the period from which data used in the AASHTO report are drawn. For example, BNSF Executive Vice President, John Lanigan testified in April 2005 in Ex Parte 657 that the number of coal trainsets hauling PRB coal increased *over 40%* from January 2003 to December 2004.⁹

Moreover, the AASHTO report does not directly evaluate future PRB capacity. The report does comment that railroads “will remain effective at attracting, retaining, and financing unit business....”¹⁰ But that statement does not refer specifically to the PRB and does not discuss capacity constraints. Instead, the report only asserts that railroads, in general, will continue to be able to attract bulk, unit-train business.¹¹ Furthermore, the AASHTO report explicitly recognizes that future demand for PRB coal is expected to grow, noting that “traffic [in the PRB] is expected to grow as more power plants east of the Mississippi switch away from higher-sulfur Appalachian Coal.”¹² Moreover, the AASHTO report’s conclusion that railroads

⁹ The average trainsets increased from 270 in January 2003 to 390 in December 2004, a 44% increase. Ex Parte 657, *Rail Rate Challenges Under the Stand Alone Cost Methodology*, Statement of John Lanigan (April 26, 2005) (hereafter “Lanigan Statement”) at 2 and exhibit 7, included in BNSF’s Rebuttal electronic workpapers as “Statement of John Lanigan (April 26, 2005).pdf”.

¹⁰ WFA/Basin Reply Nar. at IV-9, citing AASHTO Report at 93.

¹¹ The full context of the quote is:

“The fortunes of the coal industry are vital to railroads because this business is the system baseload and foundation of carrier profits. Upturns and downturns have profound bottom-line effects, and the continuation of coal volumes is crucial to railroad survival. Railroads haul 28 percent of U.S. grain production (another market influenced by foreign trade). Tonnage has been moderately down since the western rail mergers, because of a loss of interest in short-train gathering services favored by some of the pre-merger lines. Railroads have been and *will remain effective at attracting, retaining, and financing unit train business*; the key for the future is the vigor of the American bulk markets, and to a lesser extent their geographic patterns.” AASHTO Report at 93 [emphasis added to highlight WFA/Basin quotation].

¹² AASHTO Report at 117.

will be able to attract financing in the future for unit train operations begs the question of whether the Board will apply its regulatory authority over maximum rate levels in a way that permits railroads to continue to invest in these operations. Artificial or inappropriate caps on rates for unit train operations obviously could have negative effects on the railroads' ability to finance capacity expansion.

Finally, the AASHTO report recognizes the rail industry's financial challenges. The AASHTO report states that the rail industry has not been earning a rate of return sufficient to cover its cost of capital and that most of the benefits accruing from increases in productivity have been passed through to the shippers in the form of rate cuts, thus reducing the amount of capital available for the railroads to invest and, in the words of the AASHTO report, "forcing [railroads] to borrow money to maintain or expand infrastructure, or to defer maintenance and improvements."¹³ The AASHTO report recognizes that the capital-intensive rail industry is not earning enough revenue to maintain and expand its infrastructure.¹⁴

2. Evidence on Recent Capacity Tightness

WFA/Basin's assertion that no capacity tightness exists or will exist in the PRB is contrary to conclusions widely held by the industry, the press, the STB, and the financial community. As noted above, BNSF Executive Vice President John Lanigan provided the Board in April 2005 with information on the growth in PRB traffic: The number of trainsets increased over 40% from 270 in January 2003 to almost 390 in December 2004, with further growth occurring as more and more eastern utilities conduct test burns on PRB coal.¹⁵ The EIA

¹³ AASHTO Report at 95.

¹⁴ AASHTO Report at 36.

¹⁵ Lanigan Statement at 2 and exhibit 7.

estimates that PRB coal production will grow from a level of 398 million tons per year in 2004 to 615 million tons annually in 2024.¹⁶

Market participants widely recognize that capacity in 2004-2005 has been tight and that this may continue in the future if demand remains high. When CANAC, a railroad operations planning and engineering consulting firm, updated their “landmark” rail capacity study in late 2003, they found that the PRB’s Joint Line was “operating near the threshold of capacity” and that as a result, “outages [mine and track] will be inevitable.”¹⁷ Jim Thompson, an editor of *U.S. Coal Review*, similarly notes that in “Wyoming’s Powder River, there is no shortage of coal, but transportation capacity going east has been reached.”¹⁸ Furthermore, between 2003 and the present, *Platts Coal Outlook* has routinely published articles reporting that “rail capacity on the Southern PRB’s Joint Line, operated by both UP and Burlington Northern Santa Fe, is at or very near maximum.”¹⁹

Nor has the existence of PRB capacity constraints been lost on Wall Street. In October 2004, Legg Mason observed in its discussion of Union Pacific that “demand for coal appears

¹⁶ U.S. Energy Information Administration, *Annual Energy Outlook 2005*, Supplemental Table 111 (hereinafter “EIA AEO Table 111”), included in BNSF’s Rebuttal electronic workpapers as “EIA, Annual Energy Outlook (2005) Supplemental Table 111.pdf”.

¹⁷ “Capacity Issues and Trends in the PRB,” *Platts Coal Outlook* (November 17, 2003), included in BNSF’s Rebuttal electronic workpapers as “Platts Coal Outlook (November 17, 2003).pdf”.

¹⁸ “Coal Coming On: Demand Likely to Increase in 2005,” *The Billings Gazette* (January 16, 2005), included in BNSF’s Rebuttal electronic workpapers as “The Billings Gazette (January 16, 2005).pdf”.

¹⁹ “Coal Market Reaching Fever Pitch as Prices, OTC Volumes Soar,” *Platts Coal Outlook* (December 8, 2003). See also “KFX Project Raises Possibility of Arch Reviving Coal Creek Mine,” *Platts Coal Outlook* (March 29, 2004), and “Shippers, Railroads Need Joint Solutions to Problems,” *Platts Coal Outlook* (March 21, 2005). These articles are included in BNSF’s Rebuttal electronic workpapers as “Platts Coal Outlook (December 8, 2003).pdf”, “Platts Coal Outlook (March 21, 2005).pdf”, and “Platts Coal Outlook (March 29, 2004).pdf”.

very strong, as there is more coal being produced than can be hauled,” and that “Burlington Northern Santa Fe does not have enough capacity to make up for Union Pacific’s diverted traffic.”²⁰ Moreover, these capacity constraints are not portrayed as a short-term problem since PRB coal volumes are forecasted to grow substantially over the next 20 years.²¹ Bear Stearns, for example, noted in May 2005 that “drivers of growth in Western coal volumes [are] expect[ed] to persist.”²²

The Board has also observed the economic trends that are shaping the balance between supply and demand for rail transportation and has closely watched the ability of the industry to meet increased demand.²³ In various contexts, the Board has expressed concern over the adequacy of rail capacity to meet demand. For example, while WFA/Basin mention Chairman Nober’s citation to and “approval” of the AASHTO study, the testimony cited by the

²⁰ “Union Pacific Corporation NYSE:UNP – Network Congestion and Fuel Costs Remain Problematic; Demand Still Strong,” Legg Mason (October 22, 2004), included in BNSF’s Rebuttal electronic workpapers as “Legg Mason Investment Report (October 22, 2004).pdf”.

²¹ The most recent EIA forecast predicts that PRB coal production will increase from 398 million tons annually to 615 million tons annually between 2004 and 2024, an increase of 55%. See EIA AEO Table 111.

²² “Railroads: Railway Rush Hour – How Long Will Tightness in Rail Capacity and Pricing Gains Persist?” Bear Stearns (May 12, 2005), included in BNSF’s Rebuttal electronic workpapers as “Bear Sterns Investment Report (May 12, 2005).pdf”.

²³ STB Commissioner Francis Mulvey, “The Transportation Capacity Problem: Approaches to Congestion Relief,” NMFTA/NCC Meetings, San Francisco, California (August 9, 2005) (hereinafter “Mulvey August 9, 2005, Presentation”); STB Commissioner Francis Mulvey, “The STB and the Railroads in a Capacity Constrained Environment,” North American Fertilizer Transportation Conference, Mount Tremblant, Quebec (June 13, 2005); Presentation by STB Chairman Roger Nober at The Journal of Commerce Trans-Pacific Maritime Conference, Long Beach, California (February 28, 2005). These presentations are included in BNSF’s Rebuttal electronic workpapers as “Mulvey Presentation at N.A. Fertilizer Trans. Conf. (June, 13, 2005).pdf”, “Mulvey Presentation at NMFTA-NCC (August 9, 2005).pdf”, and “Nober Presentation at Journal of Commerce (February 28, 2005).pdf.”

complainants actually focuses primarily on Chairman Nober's expressed concerns regarding *underinvestment* by railroads in network infrastructure.²⁴

In fact, to monitor trends regarding potentially limited capacity particularly during peak seasons, Chairman Nober has written to each of the Class I railroads in each of the last two years regarding the railroad's ability to handle fall peak demand.²⁵ In his 2005 letter, Chairman Nober noted that "over the past two years it has become apparent that many of the service issues experienced by railroads and their customers are related to insufficient rail capacity."²⁶ In the same vein, in a recent presentation, STB Commissioner Mulvey has noted that continuous growth in demand over the next two decades coupled with the railroads' inability to earn their cost of capital and thus further invest in infrastructure will lead to a network that will have exhausted its "excess capacity" and will, therefore, be more vulnerable to random events.²⁷

²⁴ WFA/Basin Reply Nar. at IV-8, citing to Testimony of Honorable Roger Nober, Chairman of the Surface Transportation Board, Before the House Committee on Transportation and Infrastructure, Subcommittee on Railroads, Hearing on National Rail Infrastructure Financing Proposals (June 26, 2003). At 4-5, Chairman Nober commented: "I believe that freight railroads are unable to make the level of capital investment in their networks that those systems presently need. This is primarily a result of the fact, as I discussed earlier, that the return on railroads' past capital investments has fallen short of the industry's cost of capital.... Accordingly, there are still significant unmet infrastructure needs today despite the substantial investments the railroads have made in their networks." This testimony is included in WFA/Basin's Reply electronic workpapers as "Nober Testimony.pdf".

²⁵ See Letter from the Chairman Nober to Railroad CEOs Re: Fall Peak Service Demands (June 9, 2004) and Letter from Chairman Nober to Railroad CEOs Re: Fall Peak Service Demands and Infrastructure Improvements (June 15, 2005) (hereinafter "Nober 2005 Letter"). These letters are included in BNSF's Rebuttal electronic workpapers as "Nober Letter to Class I Railroads (June 9, 2004).pdf" and "Nober Letter to Class I Railroads (June 15, 2005).pdf".

²⁶ Nober 2005 Letter at 2.

²⁷ Mulvey August 9, 2005 Presentation at slide 10.

While the Board's concerns have not been PRB-specific, the Board's observations logically apply to the PRB, where traffic volume is increasing rapidly.

3. The Role of Revenue Adequacy

As rail capacity tightens, it is necessary for railroads to earn revenues sufficient to permit them to invest in capital-intensive rail infrastructure. But the Board has repeatedly found that the railroads do not earn adequate revenues. WFA/Basin asks the Board to ignore not only the widespread evidence of tight PRB rail capacity, but also the Board's own annual determinations of BNSF's revenue inadequacy. In their reply evidence, WFA/Basin dispute the Board's findings that BNSF is revenue inadequate, claiming that BNSF "extoll[s] its financial strength" in shareholder reports.²⁸

BNSF's financial position has been improving, but it still faces financial constraints regarding investment in network infrastructure.²⁹ In fact, as with other railroads, much of BNSF's infrastructure is aged and in need of constant attention and upgrade. Rates of return calculated on the basis of the historic, depreciated cost of assets can readily mask conditions in which a going concern is unable to realize adequate rates of return on the cost of replacing its overall asset structure, even when it has opportunities (as railroads have under the Staggers Act) to attract capital needed to keep the basic network operational. Proverbially, it can be quite rational (in the sense of a positive return) to change the oil on the old automobile even when the vehicle is heading toward retirement. Wise regulation of rail rates recognizes that statements by railroads to the financial community that they can generate returns on incremental investment

²⁸ WFA/Basin Reply Nar. at I-7.

²⁹ See Letter from BNSF Chairman, President and CEO, Matthew Rose, to STB Chairman Roger Nober (July 8, 2005), included in BNSF's Rebuttal electronic workpapers as "Rose Letter to Nober (July 8, 2005).pdf".

capital provided by the financial community does not demonstrate revenue adequacy of railroad networks, but does reflect the fact that regulation is doing its job under the Staggers Act of no longer killing even incremental investment. As applied in the context of tightening capacity in the PRB, rates for coal transportation should be going up, especially since additional capacity will be needed to satisfy increasing demand. Imposing artificial regulatory caps on revenues at a time when railroads need to earn revenues from a highly demanded product would be especially wrong-headed.

The Board cannot ignore its own annual revenue adequacy findings in assessing the ability of railroads to meet increasing demand with expanded capacity. The Board determines railroad revenue adequacy annually; a railroad is considered revenue adequate if it achieves a rate of return on net investment (ROI) equal to the current cost of capital for the railroad industry. In its most recent determination of revenue adequacy for 2003, the Board found BNSF to be revenue inadequate; that is, it found that BNSF's 2003 ROI of 6.2% was lower than the industry's cost of capital of 9.4%.³⁰ The implication of this finding is that BNSF is not earning sufficient overall system revenues to support replacement of its infrastructure and equipment. If a railroad is not revenue adequate over a sustained period, it will not be able to attract the capital necessary to sustain its existing network. If a railroad is not collecting enough revenue to sustain its current infrastructure, then it will be unable to invest in the expansions of infrastructure that are required by growing demand.

³⁰ See STB Ex Parte 552 (Sub No.8), *Railroad Revenue Adequacy – 2003 Determination*, Decided August 11, 2004, included in BNSF's Rebuttal electronic workpapers as "STB Rail Revenue Adequacy Decision (2003).pdf".

WFA/Basin claim that the STB's revenue adequacy rules are flawed and should be disregarded because they can overstate a railroad's revenue requirements.³¹ The validity of the Board's revenue adequacy standard is beyond the scope of this rate reasonableness case. It should be noted, however, the Board's standard is based on the book (depreciated) value of a railroad's investments; it is not based on the replacement or even market value of the railroad's assets. Going concerns that are not in a dying industry (as we would all hope is no longer the prognosis for the rail industry) must be able to generate returns over the long run that are sufficient to replace themselves, and the adequacy of rates of return must be assessed with this in mind. By focusing on historic, depreciated asset costs, the Board's standards can readily understate the return on investment needed to encourage large-scale capacity expansion and long-term network sustainability.

B. CONTRACT RATES

At the core of WFA/Basin's critique of the reasonableness of the common carrier rates established by BNSF for transportation to Laramie River is the observation that the common carrier rates are substantially higher than the expired contract rate that WFA/Basin paid in 2004. However, the fact that rates went up upon contract expiration, even that they went up substantially, does not by itself tell us anything about the reasonableness of the newly established rates. As Professor Kalt explained in his opening testimony, the expired contract rate is not a valid reference point for assessing the commercial reasonableness of the common carrier rates. The expired rate was not the product of market forces over the life of the contract or at the time of contract expiration; but, rather, the rate was the result of a prior settlement of major litigation between WFA and BN.

³¹ WFA/Basin Reply Nar. at I-8.

As discussed in Professor Kalt's opening testimony, there are at least two reasons why the expired contract rate for the Laramie River movement is meaningless as a reference point for determining the commercial reasonableness of the challenged rate. First, the initial rate established in the prior 20-year contract governing transportation to Laramie River (hereafter "1984 Contract") was the product of the settlement of a lawsuit brought by WFA against BN that included not only contract claims, but antitrust claims as well. On reply, WFA/Basin assert that rates to several other BN customers were also established as a result of litigation,³² but the existence of other non-market rates that resulted from litigation does not establish that the WFA/Basin rate should somehow be considered to be a market-determined rate. To the contrary, it means that a number of rates to various BN customers, including WFA/Basin, reflected litigation considerations rather than market forces.

Second, Professor Kalt explained that the escalation clause in the 1984 Contract was uniquely favorable to WFA/Basin. The result of this escalation clause was a remarkable rate decline over the term of the contract. Over the 20-year life of the 1984 Contract, coal transportation rates to Laramie River declined by over { } in inflation-adjusted terms.³³ In response, WFA/Basin point to an STB Rate Study showing that western rail rates declined between 1984 and 1999.³⁴ Apart from presenting a misleading summary of the data in that

³² WFA/Basin Reply Nar. at IV-4.

³³ The inflation-adjusted rate to Laramie River declined from { } (in 1984 dollars) to { } (in 1984 dollars) between third quarter 1984 and third quarter 2004, a decrease of { }. See "Exhibit II.C-1.xls" and its accompanying backup from BNSF Opening electronic workpapers.

³⁴ WFA/Basin Reply Nar. at IV-6.

study,³⁵ WFA/Basin miss the point: Regardless of the overall trend in rates as new contracts are struck and old contracts expire, while individual contracts are in effect, rates under those specific contracts do not generally decline – as they did under the WFA/Basin contract. In fact, BNSF produced in discovery a study carried out by BNSF Vice President of Coal Marketing Thomas Kraemer showing that, over the period from 1998 to 2004 in the 33 BNSF contracts for competitive movements analyzed, the contracts’ escalation provisions adjusted the rates on average by { } of the RCAF-U.³⁶ In the 20 contracts for sole-served movements that were analyzed, the applicable escalation provisions adjusted the rates on average by { } of the RCAF-U.³⁷ Because the RCAF-U was rising over the study period, this meant that escalation provisions were pulling rates upward, unlike the automatic downward revisions of rates under the WFA/Basin contract. Indeed, over 1984 through 2004, the RCAF-U increased by over 60%.³⁸ Had the WFA/Basin contract had more typical (and typically market-negotiated) terms, rates under the contract would not have shown the substantial decline that the litigation settlement yielded.

³⁵ WFA/Basin cite to rates in the STB study that were determined on a mills per ton mile basis rather than a dollar per ton basis. Consideration of rates on a mills per ton mile basis is misleading if the average length of haul for rail movements is increasing over time, as PRB rail movements have been. Because of the economic characteristics of rail transportation (e.g., high fixed costs), revenue per ton mile tends to decline as the length of the movement increases. The length of the average PRB movement has been increasing as shippers whose plants are located further away from the PRB demand PRB coal.

³⁶ “BNSF Contract Rate Study” (hereinafter “Kraemer Study”) at 7. This study was produced to WFA/Basin in discovery at “BNSF/LRS/CD 0021”. It is included in BNSF’s Rebuttal electronic workpapers as “Kraemer Rate Study.pdf”.

³⁷ Kraemer Study at 7.

³⁸ BNSF Rebuttal electronic workpaper, “Workpaper 1 - RCAF-U Calculation.xls” located in subfolder “Workpaper 1 - RCAF-U Calculation.”

The extremely favorable (to WFA) escalation in the expiring contract can also be seen by comparing the escalation that occurred under that contract with the rate escalation prior to the time that the contract was executed in 1984. The complaint that gave rise to litigation resulting in the 1984 settlement, which was included with WFA/Basin's reply workpapers, shows that the arrangement WFA sought to enforce in the 1984 litigation included an annual escalation "computed on the basis of 80% of an index compiled by the Association of American Railroads."³⁹ None of the AAR indices at the time contained an adjustment for productivity. The principal composite AAR index was the QMPW index, which was composed of several individual indices for the most important components of railroad operating expenses, including labor, fuel, materials, and supplies. If the AAR's QMPW-West index had been used to adjust WFA/Basin's rate to Laramie River between 1984 and 2004, that rate would have increased by 74%, rather than declining substantially as it did under the 1984 Contract.⁴⁰

In short, the fact that the rates for the issue traffic went up when the prior contract expired is meaningless in assessing whether the rate increase upon contract expiration was (and remains) commercially reasonable. The prior contract's rates did not reflect market forces, but rather were the product of a litigation settlement wherein BN agreed to extremely preferential contract terms

³⁹ Western Fuels Association, Inc., v. Burlington Northern Railroad Company, Complaint for Declaratory and Injunctive Relief and Damages, U.S. District Court for the District of Wyoming (October 22, 1982) at 5. It was included as "LRS Suit_001.pdf" in the electronic workpapers for Part IV of WFA/Basin's Reply Evidence.

⁴⁰ The annual QMPW-West index increased from 190.8 in 1984 to 367.1 in 2004, an increase of 92%. Applying 80% of the QMPW-West index would have resulted in a 74% increase. Association of American Railroads, "AAR Railroad Cost Indexes" (March 1995) at 8 and Association of American Railroads, "AAR Railroad Cost Indexes" (March 2005) at 8. These reports are included in BNSF's Rebuttal electronic workpapers as "AAR Railroad Cost Indexes (March 1995).pdf" and "AAR Railroad Cost Indexes (March 2005).pdf".

that produced declining rates over the life of the contract. The result when the contract expired after 20 years was rates that were out of step with market conditions.

C. BASIN'S POSITION IN THE MARKETPLACE

In determining whether the common carrier rates to Laramie River are commercially reasonable, Professor Kalt also analyzed Basin's position in the marketplace. For example, he determined that in 2003 Laramie River's generating costs were among the lowest of the coal-fired plants in the nine-state area that Basin serves, and that even with the increased common carrier rates established by BNSF, Basin's costs are still very low compared to those other coal-fired plants.⁴¹ Based upon this analysis, there is no reason to believe that BNSF's common carrier rates would make Basin uncompetitive or cause it to otherwise curtail its power production.

Rather than addressing the substance of Professor Kalt's testimony, WFA/Basin mischaracterized that testimony, incorrectly insinuating that the testimony is an effort to suggest that the Board should abandon its SAC standards and apply a new maximum rate standard under which rates would be constrained only by "what traffic will bear."⁴² Professor Kalt's testimony on opening in this regard was clearly not addressing the issue of the appropriate regulatory standard for determining a maximum reasonable rate; it was analyzing whether BNSF's common carrier rates for Laramie River were commercially reasonable based upon a consideration of objective market factors, such as Basin's competitive position in the marketplace, the tightness of supply/demand conditions in the marketplace, and so on.

⁴¹ BNSF Opening Nar. at II-27 to II-28 and cited exhibits (II.C-2 and II.C-3).

⁴² WFA/Basin Reply Nar. at IV-10.

WFA/Basin has presented no evidence that its competitive position in the marketplace has suffered due to BNSF's common carrier rates. They complain that the common carrier rates increased sharply on a mills per ton mile basis and result in a high Revenue/Variable Cost ratio,⁴³ but they do not attempt to show that their competitive position is being harmed as a result. Indeed, the level of the rail rate on a mills per ton mile basis is not relevant to assessing the impact of the new rate on Basin's position in the market. More relevant might be the rail rate on a dollar per ton basis since what determines WFA/Basin's competitiveness regarding fuel costs is what they pay (coal plus transportation) for the delivered coal that is burned to generate electricity. As WFA/Basin's opening electronic workpapers demonstrate, on a dollar per ton basis, the Laramie River common carrier rates established by BNSF are lower than the vast majority of rates that BNSF charges other customers shipping coal out of the PRB.⁴⁴ It remains the case that, under BNSF's common carrier rates, WFA/Basin generates electricity at Laramie River at costs that make the plant among the most competitive in the region.

⁴³ WFA/Basin Reply Nar. at IV-1.

⁴⁴ See WFA/Basin Opening electronic workpaper, "LRR Traffic and Revenues_WFABasinOpening.xls," worksheet "SARR Traffic_2005."

IV. WITNESS QUALIFICATIONS AND VERIFICATION

A. B. Scott Castleberry

B. Scott Castleberry is BNSF Railway Company's Director, Regulatory Costs. His business address is 2650 Lou Menk Drive, Fort Worth, Texas 76131-2830. Since joining BNSF (then the Atchison Topeka and Santa Fe) in 1991, Mr. Castleberry has held a variety of positions including Manager -- Measurement and Profitability Systems, Manager -- Operations Budget, and Senior Manager -- Performance Measurement. Through these positions, Mr. Castleberry has first-hand knowledge and familiarity with many of BNSF's data and performance measurement systems. Mr. Castleberry holds a Bachelor of Science in Industrial Engineering degree from University of Oklahoma and a Master of Science in Management degree from Baker University.

Mr. Castleberry is sponsoring evidence relating to BNSF's variable costs for the issue movement. Specifically, Mr. Castleberry is sponsoring evidence relating to the operating characteristics of the Laramie River trains and BNSF's fuel consumption data. His evidence is incorporated in Section II.A of the Narrative. Mr. Castleberry has signed a verification of the truth of the statements contained therein. A copy of Mr. Castleberry's verification is attached hereto.

I declare under penalty of perjury that I have read the Rebuttal Evidence that I have sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed on September 27, 2005



B. Scott Castleberry

B. Benton V. Fisher

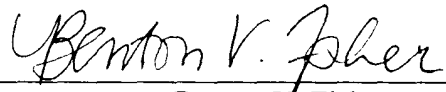
Benton V. Fisher is a Director at FTI Consulting, Inc., an economic and financial consulting firm with offices located at 1201 Eye Street, N.W., Suite 400, Washington, DC, 20005. Since 1991, Mr. Fisher has been involved in various aspects of transportation consulting including economic studies involving costs and revenues, traffic and operating analyses, and work with performance measurement and financial reporting systems.

Mr. Fisher holds a Bachelor of Science in Engineering degree from Princeton University. In 1991, he joined Klick, Kent & Allen, Inc., which was acquired by FTI Consulting, Inc. in 1998. While with KK&A and FTI, Mr. Fisher has performed numerous analyses for and assisted in the preparation of expert testimony related to merger applications, rate reasonableness proceedings, contract disputes, and other regulatory costing issues before the Interstate Commerce Commission, Surface Transportation Board, Federal Energy Regulatory Commission, Postal Rate Commission, Federal Court, and State Utility Commissions.

Mr. Fisher is sponsoring evidence relating to BNSF's variable costs for the issue movement. His evidence is incorporated in Section II.A of the Narrative. Mr. Fisher has signed a verification of the truth of the statements contained therein. A copy of Mr. Fisher's verification is attached hereto.

I declare under penalty of perjury that I have read the Rebuttal Evidence that I have sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed on September 30, 2005


Benton V. Fisher

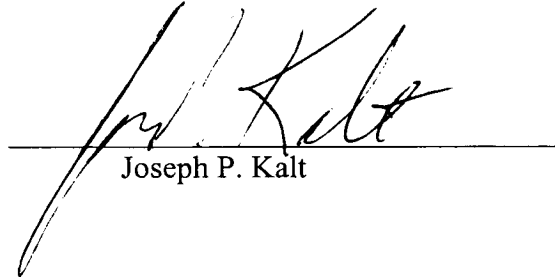
C. Joseph P. Kalt, Ph.D.

Joseph P. Kalt is the Ford Foundation Professor of International Political Economy at the John F. Kennedy School of Government, Harvard University. The Kennedy School of Government is Harvard's graduate school of public policy and public administration. He also works as a senior economist with Lexecon, an economics consulting firm and a division of FTI Consulting. Professor Kalt holds B.A., M.A., and Ph.D. degrees in economics and is a specialist in the economics of competition and industrial organization, with particular emphasis on the regulated industries. Over his career, he has researched, published, taught, and testified extensively in these areas. Professor Kalt has provided expert testimony on numerous occasions to the Surface Transportation Board, both in rulemaking proceedings and in litigated disputes. His full curriculum vitae was included with BNSF's Opening Evidence.

Professor Kalt is sponsoring evidence relating to the commercial reasonableness of the common carrier rate for the issue movement. His evidence is incorporated in Section IV of the Narrative. Professor Kalt has signed a verification of the truth of the statements contained therein. A copy of Professor Kalt's verification is attached hereto.

I declare under penalty of perjury that I have read the Rebuttal Evidence that I have sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed on September 27, 2005



Joseph P. Kalt

D. Deborah G. Newland

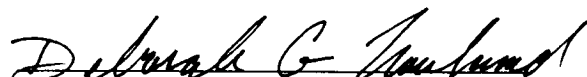
Deborah G. Newland is a Senior Consultant with FTI Consulting, Inc., an economic and financial consulting firm with offices located at 1201 Eye Street, N.W., Suite 400, Washington DC, 20005. Since 2001, Ms. Newland has been involved in various aspects of transportation consulting, including detailed cost analyses for several of the country's largest railroads, studies of historic rail rates and long term coal traffic and revenue forecasts, and extensive statistical analysis, such as modeling fuel consumption variation with cycle times and evaluating historical changes in rail transportation rates.

Ms. Newland holds a Bachelor of Arts degree in Economics from Furman University, graduating *cum laude*. She has also received a Masters of Science degree in Economics from the University of North Carolina at Chapel Hill, and has also completed extensive econometric coursework at the doctoral level, covering such topics as measure-theoretic probability, statistical theory, and applied econometrics. Since joining FTI in 2001, Ms Newland has performed economic and financial consulting services to regulated and newly deregulated industries, including the transportation and postal sectors. Her focus is on costing and statistical analyses in support of expert testimony within regulatory proceedings, and she has assisted in the preparation of expert testimony in proceedings before the Surface Transportation Board and the Postal Rate Commission.

Ms. Newland is sponsoring evidence relating to BNSF's variable costs for the issue movement. Her evidence is contained in Section II of the Narrative. Ms. Newland has signed a verification of the truth of the statements contained therein. A copy of that verification is attached hereto.

I declare under penalty of perjury that I have read the Rebuttal Evidence that I have sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed on September 28, 2005


Deborah G. Newland

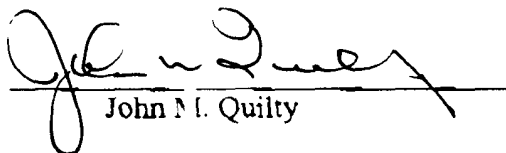
E. John M. Quilty

John M. Quilty is the Assistant Vice President of Operating Practices for BNSF Railway Company (BNSF). His business address is 2600 Lou Menk Drive, Fort Worth, Texas, 76161-2800. Mr. Quilty has been employed by BNSF or one of its predecessors for the last 36 years, holding various positions with responsibility for train operations. He is familiar with the manner in which BNSF handles virtually all aspects of train operations for the BNSF trains in coal service. In his current position, he is responsible on a system-wide basis for: (1) ensuring efficient train operations; (2) approving rules governing train operations; (3) overseeing train-accident investigations; and (4) providing operations information to federal and state agencies engaged in rule-making activities. He has previously submitted testimony to the Board on issues relating to locomotive operations, specifically locomotive fuel consumption.

Mr. Quilty is sponsoring evidence relating to BNSF's use of its Fuel Burn Model data in the ordinary course of business and to fuel consumption for the issue movement. His evidence is incorporated in Section II.A of the Narrative. Mr. Quilty has signed a verification of the truth of the statements contained therein. A copy of Mr. Quilty's verification is attached hereto.

I declare under penalty of perjury that I have read the Rebuttal Evidence that I have sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed on September 23, 2005



John M. Quilty

REDACTED

REDACTED

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