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July 14, 2008

Via HAND DELIVERY

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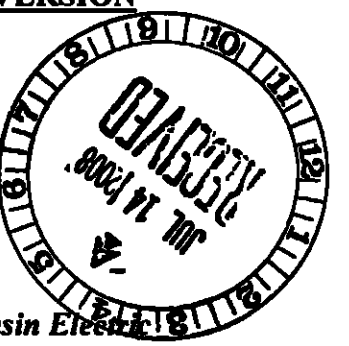

The Honorable Anne K Quinlan
Acting Secretary
Surface Transportation Board
395 E Street, S W
Washington, DC 20423

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

Dear Acting Secretary Quinlan:

Enclosed for filing in the above-captioned matter are the original and ten copies of the Public version of the Third Reply Supplemental Evidence of BNSF Railway Company. A Highly Confidential version of the Third Reply Supplemental Evidence is being filed under separate cover.

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

Sincerely,

Samuel M Sipe, Jr

Enclosures

cc Counsel for Complainant

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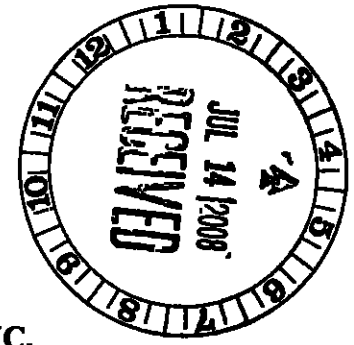


BEFORE THE
SURFACE TRANSPORTATION BOARD

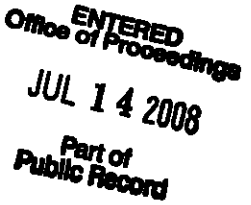
STB Docket No. 42088

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

v.

BNSF RAILWAY COMPANY

Third Supplemental Reply Evidence of BNSF Railway Company



NARRATIVE & EXHIBITS

Volume I of I

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July 14, 2008

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ABBREVIATIONS

TERMS:

4R Act	The Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. No. 94-210, 90 Stat. 31.
AAR	Association of American Railroads
ATC	Average Total Cost
Basin or Basin Electric	Basic Electric Power Cooperative
BNSF	BNSF Railway Company
CAPM	Capital Asset Pricing Model
CMP	Constrained Market Pricing
CP	Control Point
CTC	Centralized Traffic Control
CY	Cubic Yard
DCF	Discounted Cash Flow
DOT	Department of Transportation
EIA	Energy Information Administration
EPA	Environmental Protection Agency
FRA	Federal Railroad Association
GTM	Gross Ton Mile
ICC	Interstate Commerce Commission
JEC or Jeffrey	Westar Energy's Jeffrey Energy Center
Laramie River	Laramie River Station
LF	Linear Foot
LRR	Laramie River Railroad
LRS	Laramie River Station
LUM	Locomotive Unit Mile
MGT	Million Gross Ton
MMM	Maximum Mark-Up Methodology
MOW	Maintenance of Way
MP	Milepost
MSP	Modified Straight-Mileage Prorate

Nar.	Narrative
NT	Net Ton
OTM	Other Track Materials
PPI	Producer Price Index
PRB	Wyoming Powder River Basin
PSI	Pounds Per Square Inch
RCAF	Rail Cost Adjustment Factor
RCAF-A	Rail Cost Adjustment Factor-Adjusted for Changes in Productivity
RCAF-U	Rail Cost Adjustment Factor-Unadjusted for Changes in Productivity
ROW	Right of Way
RPI	Road Property Investment
RSAM	Revenue Shortfall Allocation Method
RS Means or Means	RS Means Heavy Construction Handbook
RTC	Rail Traffic Control
R/VC	Revenue-To-Variable Cost
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
SF	Square Foot
Staggers Act	Pub L. No. 96-448, 94 Stat. 1895 (1980)
SY	Square Yard
TSO	Third Supplemental Opening Evidence
TSR	Third Supplemental Reply Evidence
UMF	URCS Master File
UP	Union Pacific
URCS	Uniform Rail Costing System
USGS	United States Geological Survey
VHF	Very High Frequency
WFA	Western Fuels Association, Inc.

CASE NAMES

November 2006 Decision	*Western Fuels Ass'n, Inc. v. BNSF Railway Co.*, STB Docket No. 42088 (STB served Nov. 8, 2006).
September 2007 Decision	*Western Fuels Ass'n, Inc. v. BNSF Railway Co.*, STB Docket No. 42088 (STB served Sept. 10, 2007).
February 2008 Decision	*Western Fuels Ass'n, Inc. v. BNSF Railway Co* , STB Docket No. 42088 (STB served Feb 29, 2008).
March 2008 Decision	*Western Fuels Ass'n, Inc. v. BNSF Railway Co.*, STB Docket No 42088 (STB served Mar 12, 2008).
AEPCO	*Arizona Electric Power Cooperative v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company*, STB Docket No. 42058 (STB served Nov. 18, 2003).
AEP Texas	*AEP Texas North Co. v. BNSF Railway Co* , STB Docket No. 41191 (STB served Sept. 10, 2007).
APS	*Arizona Public Service Co. v Burlington Northern and Santa Fe Railway Co.*, STB Docket No. 41185 (STB served Oct. 14, 2003).
Board's Reply	Board's Reply in Support of Its Motion to Dismiss, *Western Fuels Ass'n, Inc. & Basin Elec. Power Coop., Inc. v. STB*, D.C. Cir. No. 08-1167 (filed June 26, 2008).
Ex Parte No. 646	*Simplified Standards for Rail Rate Cases*, Ex Parte No. 646 (STB served Sept. 5, 2007).
Ex Parte No. 657 (Sub-No.1) or *Major Issues in Rail Rate Cases*	*Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No.1) (STB served Oct. 30, 2006).
Ex Parte No. 664 Notice	*Methodology to be Employed in Determining the Railroad industry's Cost of Capital*, STB Ex Parte No. 664 (STB served Aug. 20, 2007)
Ex Parte No. 664	*Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, STB Ex Parte No. 664 (STB served Jan. 17, 2008).
ANRP Ex Parte No. 664 (Sub-No. 1)	*Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, STB Ex Parte No. 664 (Sub-No.1) (STB served Feb. 11, 2008).
Otter Tail	*Otter Tail Power Co v. The Burlington Northern and Santa Fe Railway Co.*, STB Docket No. 42071 (STB served Dec. 13, 2004).
Pepco	*Potomac Electric Power Company v. Penn Central Transportation Company*, 359 I.C.C 222 (1977).

PPL	*PPL Montana, LLC v The Burlington Northern and Santa Fe Railway Co.*, 6 S.T.B. 752 (2003).
TMPA	*Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Railway Co.*, 6 S.T.B. 573 (2003)

I. COUNSEL'S ARGUMENT AND SUMMARY OF THE EVIDENCE

This is the Reply Evidence and Argument of defendant BNSF Railway Company ("BNSF") in response to the Third Supplemental Opening Evidence of Complainants Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. (collectively "WFA/Basin"), filed on May 13, 2008 ("Third Supplemental Opening" or "TSO").

A. INTRODUCTION

On September 10, 2007, the Board found, based on a fully developed evidentiary record, that the rates challenged by WFA/Basin in this proceeding did not exceed a reasonable maximum rate under the SAC standard. *Western Fuels Ass'n, Inc. & Basin Elec. Power Coop. v. BNSF Railway Co.*, STB Docket No. 42088 (STB served Sept. 10, 2007) ("*September 2007 Decision*"). For purposes of the September 2007 SAC analysis, the Board examined the costs and revenues of a SARR that consisted of a carve out of BNSF's high density Powder River Basin ("PRB") line running from the Campbell Subdivision mines in the north to Guernsey, Wyoming in the south. The SARR thus replicated the same lines used by BNSF to provide service to the issue traffic. The SARR also handled virtually all of the coal traffic that BNSF currently handles on that line and thereby achieved substantial economies of density. The SAC analysis carried out by the Board in the *September 2007 Decision* was straightforward and showed that the revenues generated by the SARR traffic group did not exceed the costs to build and operate the lines at issue. The Board therefore concluded that "the record does not support WFA's claims" that the challenged rates were unreasonable. *September 2007 Decision* at 2.

The Board noted that the results of its SAC analysis – that the challenged rates were not unreasonable – were consistent with the commercial realities of the PRB coal transportation market. The Board explained that it was not surprising that the SAC analysis found the

challenged rates to be reasonable given that the rates at issue in this proceeding are among the lowest rates that BNSF charges to any of its PRB coal shippers. As the Board explained:

> Because WFA's plant is located so close to the PRB, its rate to the Laramie River plant is one of the lowest transportation rates any utility pays to acquire PRB coal. Many utilities that desire the low-sulfur PRB coal are located in distant states such as Texas or Georgia, and pay two or three times [the challenged] rate. Even in comparison to other utilities located near (but not quite as close to) the PRB mines, the rate is low on a dollar-per-ton basis. The rate is also low in comparison to other PRB rates that have been challenged before the Board as unreasonable by other captive shippers.

September 2007 Decision at 2

Notwithstanding the Board's SAC results and its conclusion that the challenged rates were commercially reasonable, the Board gave WFA/Basin an opportunity to submit limited supplemental SAC evidence to take account of the Board's recent change in methodology used to allocate revenues on cross-over traffic. WFA/Basin had argued that it was unfair for the Board to apply in WFA/Basin's SAC case a new methodology for allocating revenue on cross-over traffic that the Board adopted in *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No.1) (STB served Oct. 30, 2006) ("Ex Parte No. 657" or "*Major Issues in Rail Rate Cases*"), while WFA/Basin's SAC evidence was pending. WFA/Basin claimed that if they had known the Board would apply a density-based revenue allocation approach, they might have presented different SAC assumptions. While acknowledging that it does not normally allow complainants a second chance to submit SAC evidence, the Board acceded to WFA/Basin's procedural complaint and concluded that "fairness dictates that WFA have an opportunity to modify its SAC presentation in light of the new revenue allocation methodology." *September 2007 Decision* at 3.

The Board made it clear, however, that the scope of any new SAC evidence by WFA/Basin was to be limited to changes required by the Board's adoption of the Average Total Cost ("ATC") revenue allocation methodology for cross-over traffic The Board emphasized that WFA/Basin was not being given the opportunity to start its case over with new SAC evidence. The purpose of the reopening was limited to adjustments to WFA/Basin's existing SAC case to take account of any new incentives created by ATC that had not existed under the Board's MSP revenue allocation procedure As the Board subsequently explained, the Board "offered WFA the opportunity to redesign the LRR for the limited purpose of addressing the new revenue allocation procedure and to submit supplemental evidence based on that redesign." *Western Fuels Ass'n, Inc. & Basin Elec. Power Coop. v. BNSF Railway Co.*, STB Docket No 42088, slip op. at 2 (STB served Mar. 12, 2008) ("*March 2008 Decision*").

BNSF continues to believe that the Board erred in giving WFA/Basin a second chance to submit SAC evidence As BNSF explained in its October 22, 2007 Petition for Reconsideration, there is nothing unfair in requiring WFA/Basin to live with the consequences of their deliberate litigation decisions. WFA/Basin's SAC assumptions were apparently driven by a desire to take advantage of the MSP revenue allocation methodology, but WFA/Basin had no legitimate reason to assume that the MSP methodology, which had been questioned in the past, would be used to allocate revenues in this case. It is unprecedented for the Board to give the complainant a second bite at the apple where the complainant simply misjudged how the Board would apply underlying SAC principles. Prior to the Board's *September 2007 Decision*, the only other recent case in which a complainant was given the opportunity to refile SAC evidence was *Arizona Electric Power Cooperative v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company*, STB Docket No. 42058 (STB served Nov. 18, 2003), where

the Board concluded that the complainant may have been misled by a prior Board ruling in the case. Here, WFA/Basin knew full well that the Board had expressed concern regarding the inadequate treatment of economies of density under the MSP methodology and that the Board was open to alternative density-based revenue allocation approaches

The Board's decision to allow WFA/Basin to supplement their SAC evidence was therefore unjustified. In any event, the Board contemplated only a limited reopening of the record, and there is no reason to believe that limited supplemental SAC evidence of the sort the Board allowed would result in a fundamental transformation of the prior SAC results, particularly since the Board already concluded that the challenged rates are commercially reasonable, and even low when compared to other PRB coal rates.

WFA/Basin's third supplemental evidence nevertheless purports to show that BNSF's challenged rates should be reduced by more than 50 percent. WFA/Basin are seeking over $120 million in reparations.[1] The supposed maximum reasonable rates presented by WFA/Basin in their third supplemental opening evidence are *lower than* the below-market rates set more than 20 years ago by BNSF's predecessor in settlement of antitrust litigation. *See* BNSF Opening at Exhibit II.C-1. (WFA/Basin's proposed rates are more than $1.00/ton less, in *nominal* dollars, than the rates established 20 years ago.) WFA/Basin proposes maximum rates that are *lower* than the rates it urged the Board to adopt in its first SAC case, where the Board concluded that no rate reduction at all was justified. BNSF does not have a single PRB coal shipper that pays rates as low as the rates that WFA/Basin urge the Board to prescribe in this case In fact, the rates sought by WFA/Basin would be far lower than any other PRB coal rate.

[1] WFA/Basin seek reparations of $7.5 million for the fourth quarter of 2004, and the quarterly amount increases over time. In October, their rate case will have been pending for 4 years.

These results make no sense and a SAC analysis that could produce them makes no sense either. When the Board decided to allow limited supplemental SAC evidence, it cannot have expected that rates that were determined not to be unreasonable would be reduced by more than 50 percent based on limited evidentiary changes intended to take account of a new revenue allocation methodology. Under WFA/Basin's new SAC evidence, the SAC results go from a present value revenue shortfall of $263 million in the Board's *September 2007 Decision* (slip op. at 139) to a present value revenue overcharge of $774 million (WFA/Basin TSO Exhibit III-H-1 at 28) – a change of $1 billion. Such a drastic swing in results could not possibly be the result of a rational application of the Board's rate reasonableness standards, particularly in light of the Board's prior SAC conclusions and its observations about the commercial reasonableness of the challenged rates. WFA/Basin's outlandish results do not reflect a proper application of the limited reopening right afforded them by the Board. Instead, those results reflect a misuse of the limited right to file supplemental evidence.

WFA/Basin went far beyond the limited scope of reopening. The Board allowed WFA/Basin to file supplemental evidence for the limited purpose of addressing new incentives in the selection of a traffic group created by the Board's adoption of ATC, not to give WFA/Basin license to start its case over with a totally new SARR. In particular, WFA/Basin's use of rerouted traffic is inconsistent with the limited reopening right afforded by the Board. Rerouted traffic should not be an issue in this reopening. The adoption of ATC did not create a new incentive to use rerouted traffic. As discussed below, WFA/Basin would have generated an even larger revenue contribution from the rerouted traffic using the old MSP methodology than under ATC. WFA/Basin had an incentive to use rerouted traffic in their initial SAC

presentation, but it chose not to. It is improper for WFA/Basin to rely on rerouted traffic now for the first time in this limited reopening.

Moreover, far from being a response to the Board's adoption of ATC, which was the sole purpose of this limited reopening of the record, WFA/Basin's use of rerouted traffic is a blatant attempt to game the Board's new Maximum Mark-Up Methodology ("MMM"). It is ironic that the Board adopted MMM to eliminate gaming associated with the percent reduction methodology only to find in the first application of MMM that MMM is highly susceptible to shipper gaming, particularly where rerouting of traffic is involved. The Board will clearly have to deal with this problem with MMM in future cases, but MMM and its gaming by aggressive shippers should not even be an issue in this reopening, which was supposed to deal only with traffic selection incentives that were changed by the adoption of ATC.

The Board should dismiss WFA/Basin's complaint on the grounds that WFA/Basin misused the opportunity for a limited reopening of the record afforded by the Board. The Board bent over backward to give WFA/Basin another opportunity to prove that the challenged rates are unreasonable through a limited reopening of the existing record, but WFA/Basin abused that opportunity in an effort to see how low it could drive the challenged rates under the new MMM methodology. The Board has already found that the challenged rates are commercially reasonable, and it should terminate this proceeding now without any further analysis.

If the Board does carry out a SAC analysis based on WFA/Basin's supplemental evidence, it should address WFA/Basin's gaming strategy with a straightforward revenue adjustment that is described below and discussed in further detail in Section III.A.3 d of this Reply Narrative. In addition, the Board should address a flaw in MMM that produces a strong and inappropriate bias in favor of reducing short-haul rates and a corresponding bias against

adjusting long-haul rates. BNSF also addresses changes that should be made to the Board's ATC calculations and certain modest adjustments that should be made to WFA/Basin's operating and construction costs. On the cost of capital issue, BNSF explains why, as a matter of both law and policy, the Board should not restate prior years' cost of capital and why the Board should make no other changes to its current methodology for assessing the SARR cost of capital in the SAC analysis. Finally, BNSF explains why any relief that the Board orders as a result of this reopening of the record should be prospective only from the date of the Board's *September 2007 Decision*, and why, if any rate prescription is ordered, the prescription period should be no longer than 10 years.

B. WFA/BASIN DID NOT COMPLY WITH THE LIMITED SCOPE OF THIS REOPENING.

When the Board allowed WFA/Basin to reopen the record, the Board emphasized that the scope of the reopening was limited: "This is not an opportunity to submit a new case, but instead is an opportunity to allow WFA to modify its SAC presentation in light of the new revenue allocation methodology." *September 2007 Decision* at 8. The concern prompting the Board to reopen the record was that WFA/Basin may have included traffic in the original traffic group that WFA/Basin would not have included if they had known that revenues on cross-over movements would be determined using ATC. *Id.* at 20 Changes to the SARR traffic group and any corresponding design changes in the SARR were to be limited to those necessary to address this concern. Otherwise, the Board's admonition that a "new case" was unacceptable would be meaningless.

It has long been the Board's practice strictly to limit new evidence in a reopening to changes in SAC assumptions that are required by the changes that justified the reopening. Thus, in *Arizona Public Service Co. v. Burlington Northern and Santa Fe Railway Co*., STB Docket

No 41185, slip op. at 5 (STB served Oct. 14, 2003), the Board limited new evidence on reopening to the effects of the imminent closure of a mine served by the SARR. The Board rejected the complainant's request to re-design the SARR: "[I]t is not necessary to alter the configuration of the SARR or its traffic mix (other than to reflect the resourced coal traffic) to respond to the changes that justified reopening." *Id* The Board reasoned that:

> [D]isallowing a broader reopening than justified by the substantially changed circumstances is good public policy. It promotes stability in rate prescriptions and reduces the administrative burden of continued reopenings. It also gives parties an incentive to make their best case initially, rather than to make a lesser case and attempt to improve it later on reopening.

Id at 6.

The Board reached the same conclusion in *West Texas Utilities Co. v. Burlington Northern and Santa Fe Railway Co.*, STB Docket No. 41191, slip op. at 3 (STB served July 23, 2003):

> The Board has recently held that it is not appropriate to bring an entirely new rate case under the guise of a reopening.... This limitation is necessary to achieve a proper balance between the interests of fairness to all parties and of administrative finality and repose.

The Board reiterated this long-standing policy in its recent Notice of Proposed Rulemaking in *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No.1), slip op. at 37 (STB served Feb 27, 2006), noting the importance of protecting railroads from "the threat of repetitive litigation by unsuccessful litigants who can demonstrate no more than a desire to make a better case."

In *PPL Montana, LLC v. The Burlington Northern and Santa Fe Railway Co.*, 6 S T.B. 752 (2003), the complainant sought permission to submit new evidence on reopening in response

to the Board's adoption of an internal cross-subsidy test. Specifically, PPL sought permission to reroute traffic onto the SARR's western lines, claiming that it would have rerouted the traffic in this manner if it had known the Board was going to adopt a cross-subsidy test. The Board refused to allow this change to PPL's original assumptions, which the Board concluded was simply an attempt by PPL to submit new SAC evidence to improve on its original case, not a valid response to the Board's adoption of a cross-subsidy test. *Id.* at 760. The Board in this case cited its decision in *PPL* as guidance on the limited scope of new evidence that would be accepted here. *Western Fuels Ass'n Inc. & Basin Elec Power Coop. v. BNSF Railway Co*, STB Docket No 42088, slip op. at 3, note 3 (STB served Feb. 29, 2008) ("*February 2008 Decision*").

WFA/Basin's supplemental evidence is not a valid and limited response to the specific concerns that led the Board to allow new evidence, but rather is an attempt to submit a fundamentally altered SAC case. The Board should not allow WFA/Basin to defy the clear limits on the scope of this reopening.

1. WFA/Basin Violated the Board's Clear Instruction Not To Submit A New SAC Case.

WFA/Basin have flouted the Board's instructions in this case and the Board's longstanding precedent by submitting in this limited reopening what is essentially a new SAC case. WFA/Basin's new SARR – the basis for its supplemental evidence – is strikingly different from its original SARR. As discussed in Section III.A.1 below, WFA/Basin's original SARR had three fundamental characteristics, all of which have been abandoned in their new SAC case and replaced with entirely new features.

First, in their original SAC case WFA/Basin included no rerouted traffic, touting the lack of rerouted traffic as a central feature of their SAC evidence: "By having no reroutes, WFA/Basin moot an issue that has complicated many recent SAC cases." WFA/Basin Op. Nar.

at I-13. As discussed further below, the most significant feature of their new SAC case is the heavy use of rerouted traffic to manipulate the Board's new MMM methodology. By reversing course and including rerouted traffic – which now accounts for more than one-third of the revenues generated by the new SARR traffic group – WFA/Basin have introduced into this proceeding an array of new and complex issues that should not be before the Board at this stage of the proceedings. This fundamental change in SAC assumptions, standing alone, should result in the Board's rejection of WFA/Basin's new evidence.

Second, WFA/Basin's original SARR configuration was basically limited to the facilities used by the issue traffic: "With one minor exception, all of [the SARR's] lines follow the route used by BNSF to transport PRB coal traffic to [the Laramie River facility], and there are no long lines that deviate from the main route of movement." WFA/Basin Op. Nar. at I-17. In contrast, their new SARR is nearly one-third longer than the original SARR and includes a new 92-mile line that is not used at all by the issue traffic The SARR contains no new traffic that might justify additional facilities. The construction of new facilities to handle traffic that was already in the original SARR traffic group is not a valid response to the limited concerns that justified reopening the record. Moreover, to the extent the new facilities were posited because of WFA/Basin's decision to include large volumes of rerouted traffic, the assumption of new facilities underscores the inappropriateness of WFA/Basin's rerouting assumptions.

Third, the original SARR replicated BNSF's existing PRB operations which rely on two routes into and out of the PRB, and it handled virtually all of the traffic that BNSF handles today on those two routes. One route serves the northern mines through lines going east and west at Donkey Creek, WY in the north, and a second, separate route serves primarily the central and southern PRB mines through Guernsey. The new SARR has only one route into and out of the

PRB on lines going through Guernsey. All SARR trains now enter the PRB from the south and serve all PRB mines on the same north-south route. The original SARR thus accepted the basic efficiency of BNSF's existing two-route network, while the new SARR now assumes that a one-route network is the efficient way to serve PRB shippers. In addition, the original SARR handled almost 220 million tons of coal in its last year of operations, serving 76 power plants for 36 shippers. The new SARR, with its single north-south route, now is assumed to handle less than 70 million tons of coal in its last year of operations, serving only 21 shippers.

WFA/Basin should not be allowed to make such fundamental changes in their original assumptions at this stage of the proceedings Their supplemental evidence is the equivalent of a new SAC case, contrary to the plain instructions by the Board. The purpose of the limited reopening was *not* to give WFA/Basin an opportunity to dream up a totally new approach to the presentation of SAC evidence but to determine whether limited changes to their original SAC assumptions were appropriate to address the possibility that the adoption of ATC had made some marginally profitable traffic in the original SAC presentation unprofitable to the SARR WFA/Basin have defied the Board's express instruction on the limited scope of this reopening, and the Board should reject their new evidence and terminate this proceeding.[2]

2. <u>WFA/Basin's Rerouting Assumptions Are Not A Valid Response to the Concerns That Led The Board to Allow Supplemental Evidence.</u>

The concern that led the Board to give WFA/Basin an opportunity to submit supplemental evidence was that WFA/Basin may have "included in [their] traffic group considerable traffic offering limited revenue contribution" that they might not have included if

[2] It would be particularly inappropriate to accept WFA/Basin's reliance on a new set of SAC assumptions if the Board were to treat this phase of the proceedings as a mere continuation of WFA/Basin's original SAC case, rather than a reopening with only prospective effect. This issue is discussed further below in Section I I.

they had known the Board would adopt ATC *September 2007 Decision* at 20. The Board thus contemplated the elimination of traffic that had become unprofitable, not the extensive rerouting of traffic that WFA/Basin have engaged in.

The rerouting of traffic is not a valid response to the adoption of ATC. WFA/Basin could have rerouted traffic in their original SAC case, but they chose not to do so and instead argued that their SAC evidence was reasonable precisely because the SARR included no rerouted traffic. Thus, WFA/Basin's attempt to reroute traffic should be rejected for the same reason that the Board rejected PPL's request to reroute traffic in the *PPL* case – *i.e.*, the incentive to reroute traffic existed when WFA/Basin submitted their original SAC evidence but they chose not to rely on rerouted traffic. Indeed, Table III.A-1 shows that the rerouted traffic would have generated even more revenues under MSP than it generates under ATC. The Board's adoption of ATC did not create the incentive to use rerouted traffic, so WFA/Basin should not be allowed to modify their SAC evidence to rely on rerouted traffic now.

The rerouting of the Jeffrey movement to the Westar Jeffrey Energy Center, which accounts for nearly half of the rerouted traffic, is particularly inappropriate. The single most important change in SAC assumptions in WFA/Basin's supplemental evidence is their decision to reroute the Jeffrey movement onto the facilities used by the issue traffic. That decision allowed WFA/Basin to capture the full revenues earned by BNSF on this movement, a total of { } in 2005. The incremental revenues earned by the SARR by handling Jeffrey as a local movement instead of a cross-over movement accounts for almost all of the annual revenue overage in WFA/Basin's new SAC case.[3]

[3] The SARR would generate revenues of { } on Jeffrey as a cross-over movement in 2005. By handling Jeffrey as a local movement, WFA/Basin increase the SARR's revenues from Jeffrey by more than { }. *See* BNSF TSR workpaper "Jeffrey

WFA/Basin had the opportunity in their original SAC case to earn BNSF's full revenues on the Jeffrey movement by handling it as a local movement, either through a reroute or by building the facilities on the existing route of movement Changes in the Board's methodology for allocating revenues on cross-over traffic had no impact whatsoever on the amount of revenue that the SARR would have earned if it had chosen to handle the Jeffrey movement as a local movement. WFA/Basin chose to forego the full revenues that would have been available to the SARR by handling Jeffrey as a local movement and instead chose to handle Jeffrey as a cross-over movement. As in the *PPL* case, complainants should be held to their original decision on how to route traffic.

The adoption of ATC did not change WFA/Basin's incentive to handle Jeffrey as a cross-over movement. Handling the Jeffrey movement as a cross-over movement would have been highly profitable to the SARR under MSP and it is still highly profitable to the SARR under ATC. Indeed, if the SARR handled Jeffrey as a cross-over movement, the Jeffrey traffic would use facilities in the northern PRB that the SARR must construct to serve the issue traffic. Thus, virtually all of the revenues generated by the Jeffrey movement above directly variable costs would be contribution to the SARR. Jeffrey remains highly profitable to the SARR as a cross-over movement under ATC. The Board's adoption of ATC did not give WFA/Basin a valid reason to abandon their prior treatment of Jeffrey as a cross-over movement.

3. WFA/Basin Have Failed to Justify Their Use of Rerouted Traffic.

Even if the rerouting of traffic were a valid response to the adoption of ATC, which as discussed above it is not, WFA/Basin would have to demonstrate under the Board's existing

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RVC.xls." The total overage of WFA/Basin's SARR for 2005 is { }. *See* WFA/Basin TSO Table III-H-1. All workpapers submitted by BNSF with this supplemental reply evidence are being submitted as electronic workpapers.

standards that the reroutes were justified. WFA/Basin admit that they did not rely on rerouted traffic in their original SAC evidence so that they could "moot an issue that has complicated many recent SAC cases." WFA/Basin Op. Nar. at I-13. Now that they have chosen to use rerouted traffic in their new SAC case, they fail to address the complications that led them to avoid rerouted traffic in the first place.

In *Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Railway Co*, 6 S.T.B. 573, 591 (2003), the Board announced a two-part test for assessing the validity of rerouted traffic. Whether rerouting is permissible depends on:

> (1) a factual assessment of whether the transportation needs of the shipper would be met by the SARR and (2) a more fundamental consideration of whether the underlying purpose and objectives of the SAC test would be met.

WFA/Basin address the first prong of the test with evidence relating to the transit times achieved by SARR trains but they totally ignore the second prong of the two-prong test. The Board explained in its decision in Ex Parte No. 646, that the option to reroute traffic in a full SAC case is intended to allow a complainant to address inefficiencies that might exist in the defendant's existing routing of traffic. *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (STB served Sept. 5, 2007). But WFA/Basin do not say a single word about the supposed efficiency rationale for rerouting traffic. They point to nothing about BNSF's existing two-route PRB network that is inefficient.[4]

[4] Indeed, it is apparent without detailed analysis that there are substantial efficiencies obtained from having two routes into and out of the congested PRB. BNSF's existing network provides substantial flexibility to deal with break-downs and outages on one part of a line that could bring traffic in a more limited network to a halt. It also allows BNSF efficiently to serve northern and southern mines through separate routes.

WFA/Basin have not assumed a rerouting of traffic in their supplemental evidence to eliminate costs due to inefficiencies in BNSF's existing network It is not inefficient for BNSF to route traffic originating at northern PRB mines on a route through Alliance, NE, that avoids congestion in the central and southern PRB. Traffic reroutes are not being used here to test for inefficiencies, which is the reason that the Board indicated in Ex Parte No 646 for allowing a complainant to reroute traffic in SAC cases Rather, as explained below, WFA/Basin are using reroutes in this supplemental evidence to take advantage of the Board's newly adopted MMM methodology for setting maximum rates, which rewards a SARR that is able to load up on high rated traffic. WFA/Basin have not tried to show and cannot show that their rerouting assumptions meet the "underlying purpose and objectives of the SAC test," as required under the Board's existing standards. WFA/Basin have therefore failed to justify a core assumption in their supplemental evidence, and the Board should reject their evidence and terminate this proceeding.

C. WFA/BASIN'S NEW SARR WAS IMPROPERLY DESIGNED TO GAME THE BOARD'S MMM METHODOLOGY.

The Board's clearly stated purpose in reopening the record was to consider evidence related exclusively to the change in its treatment of cross-over traffic revenue divisions. But WFA/Basin seek to use this reopening as an opportunity to game the Board's new MMM rate reduction methodology. WFA/Basin's gaming strategy is to reroute onto the facilities used by the issue traffic certain high-rated traffic that does not use those facilities in the real world. By rerouting high rated traffic onto the issue traffic lines and eliminating other profitable but lower rated traffic that actually uses those lines, WFA/Basin are able to manipulate the procedures used in MMM to create a much larger rate reduction than they would otherwise receive. Such an attempt to game MMM would be inappropriate under any circumstances, but it is particularly

inappropriate in this case, where the limited supplemental evidence was supposed to focus only on the effects of the Board's decision to change from the MSP cross-over revenue allocation methodology to ATC.

The Board adopted MMM to deal with the possibility of railroad gaming of the existing percent reduction methodology. But the Board was concerned that "[t]he percent reduction approach is also subject to manipulation by a shipper." *Major Issues in Rail Rate Cases* at 8. As the Board explained, the shipper could manipulate the percent reduction methodology by "grouping a challenged rate with non-issue traffic that is much higher rated to generate a larger rate reduction." *Id* at 9. The Board concluded that "this is sufficient to warrant a change; the maximum reasonable rate that can be charged to a complaining captive shipper should be determined by the Board based upon the evidence and applicable precedent, not by parties' litigation tactics." *Id.*

WFA/Basin have engaged in precisely the type of improper litigation tactic that prompted the Board's proposal to abandon the percent reduction methodology – "grouping a challenged rate with non-issue traffic that is much higher rated to generate a larger rate reduction." WFA/Basin accomplish this by rerouting high rated traffic from the existing route of movement in the real world to the route used by the issue traffic and by dropping from that route other lower rated traffic. By artificially concentrating high rated traffic onto the facilities used by the issue traffic, WFA/Basin are able to generate a larger rate reduction under MMM. The Board adopted MMM to protect against this type of manipulation of its rate reduction methodology only to find in the first application of MMM that the new rate reduction methodology is highly susceptible to shipper manipulation, especially through the rerouting of traffic. WFA/Basin have sought to take full advantage of this flaw in MMM.

BNSF explains in Section III-A how MMM can be gamed to generate larger rate reductions than warranted. As a result of the iterative feature of MMM, a complainant has the incentive to reduce as much as possible the amount of traffic that generates revenues below the benchmark R/VC ratio that is the starting point for the MMM calculations and to increase as much as possible the amount of traffic that generates revenue above the benchmark R/VC. (The benchmark R/VC is the R/VC which, if generated by all SARR traffic, would produce just enough revenues to cover SAC costs.) This is because traffic generating revenues below the benchmark R/VC creates a shortfall which is made up through the iterative feature of MMM by increasing the benchmark R/VC for the remaining shippers. The iterative function continues to increase the benchmark R/VC until the R/VC benchmark is high enough to ensure that total SAC costs are covered. The less traffic that starts below the benchmark R/VC, the fewer iterations are performed by MMM, resulting in a larger rate reduction for the issue traffic.

In a contestable market, a SARR would not have any reason to refuse to serve shippers just because those shippers generate R/VC ratios below an artificial MMM-based R/VC benchmark. Traffic generating R/VC ratios below the benchmark R/VC calculated by MMM may be profitable traffic that generates a positive incremental contribution in excess of incremental SAC costs caused by that traffic. A SARR would not care how much contribution is generated by a prospective shipper, just that the contribution would be positive. Indeed, a rational SARR would not be interested in excessive contribution because contestable markets would not allow the SARR to retain any excessive contribution. The relative amount of the contribution offered by particular shippers would only be relevant to a complainant seeking to manipulate the rate reduction methodology.

WFA/Basin sought to manipulate MMM by eliminating profitable traffic that actually uses the issue traffic route of movement and replacing that traffic with higher rated traffic rerouted onto the issue traffic facilities But this manipulation of the SARR traffic group is not consistent with SAC principles. A SARR would not have eliminated the profitable but lower rated traffic, since that traffic clearly generates more revenue than cost. BNSF demonstrates in Section III.A.3.d that the excluded traffic generates a positive contribution, so it would not have been excluded by a rational SARR WFA/Basin's strategic rerouting of traffic allowed WFA/Basin to replace existing traffic (traffic that actually uses the issue traffic facilities) with rerouted traffic having higher R/VC ratios. The resulting distribution of R/VC ratios no longer reflects in any way the distribution of R/VC ratios in the real world on the traffic using those facilities. WFA/Basin thus created an artificial rate structure that is heavily weighted toward high-rated traffic for the purpose of manipulating MMM to produce a large reduction to the issue traffic rate.

The Board made it clear when it abandoned its longstanding percent reduction methodology that it will not accept manipulation of its rate reduction methodology, and it should not accept WFA/Basin's gaming of MMM here. WFA/Basin's creation of an artificial rate structure by rerouting high-rated traffic and eliminating profitable but lower rated traffic is a blatant attempt to manipulate MMM. If the Board does not reject WFA/Basin's evidence altogether on grounds that such an attempt to game MMM is outside the limited scope of this reopening, the Board should neutralize WFA/Basin's gaming by restoring the real world rate structure on the lines that are at issue in this case and basing the MMM calculations on the real world rate structure.

BNSF explains in Section III.A.3.d below how the impact of WFA/Basin's gaming can be eliminated through a straightforward adjustment to the revenues assumed by WFA/Basin on the rerouted traffic. The revenue adjustment that the Board should adopt in this case involves calculating the average R/VC ratio on the improperly excluded traffic (which actually uses the issue traffic facilities) and adjusting the revenues for each rerouted movement to produce that average R/VC ratio. Thus, the revenue adjustment would restore the real world distribution of R/VC ratios on traffic using the issue traffic facilities and eliminate the effects of WFA/Basin's creation of an artificial distribution of R/VC ratios to game the MMM rate reduction methodology.

D. THE BOARD SHOULD CORRECT A FLAW IN MMM THAT BIASES THE RATE REDUCTION METHODOLOGY IN FAVOR OF SHORT-HAUL TRAFFIC.

WFA/Basin's new SAC evidence raises another issue relating to the implementation of MMM that should be addressed if the Board considers the merits of WFA/Basin's supplemental evidence. It is widely acknowledged that short-haul traffic tends to have rates that generate higher R/VC ratios than long-haul traffic. The market factors that produce these rate differentials are discussed below in Section III H 2.b.

As explained by BNSF's witness John Klick, short-haul coal shippers generally have more demand inelasticity for transportation service given their significant cost advantage over other competing utilities located farther from the source of coal. Since short-haul shippers tend to be more demand inelastic, a railroad can charge rates that generate higher R/VC ratios. The railroad and the shipper generally share the shipper's cost advantage through rates with somewhat higher R/VC ratios.

In addition, a railroad may price short-haul traffic at a higher R/VC ratio to increase the absolute dollar contribution in excess of variable cost from that traffic to levels that are closer to the contribution generated on longer-haul movements. The relative amount of contribution is important to the railroad because loading slots in the PRB are a finite and limited resource. Since railroads are common carriers, they cannot allocate loading slots only to shippers offering the highest contribution. But the railroad incurs an opportunity cost when a low contribution movement displaces a high contribution movement for access to a PRB mine. To avoid these opportunity costs, a railroad will try to equalize to the extent possible the contribution from all traffic. Since the variable costs of short-haul movements are significantly less than the variable costs of long-haul movements, a higher R/VC ratio is necessary on short-haul movements to generate a dollar contribution that is comparable to that generated on a long-haul movement.

MMM is not intended to eliminate a railroad's differential pricing based on market factors, such as those that produce higher R/VC ratios on short-haul traffic.[5] But MMM establishes a benchmark R/VC ratio that caps rates at the same level regardless of whether a shipper is a short-haul or a long-haul shipper. MMM therefore inadvertently eliminates an important element of differential pricing in railroad markets. Short-haul shippers are thereby given an inappropriately large rate reduction under MMM while long-haul shippers are less likely to receive rate reductions, even if their rates are high relative to other long-haul shippers. The objective of MMM should be to reduce rates that are unreasonably high after accounting for legitimate dimensions of differential pricing that yield relatively higher R/VC ratios on short-haul movements.

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[5] In defending its adoption of MMM, the Board made it clear that it intended for MMM to continue to "provide[] for differential pricing." *Major Issues in Rail Rate Cases* at 20.

BNSF performed a regression analysis that confirms the relationship between R/VC ratios and length of haul. The regression equation developed for that analysis can also be used to normalize the R/VC ratios of the shippers in the SARR traffic group to account for the impact of distance on R/VC ratios. BNSF explains in Section III.H 2 b how the regression equation can be applied in the MMM procedure to ensure that rates are reduced most on the movements that have the highest rates relative to movements of comparable length of haul. Such an approach eliminates the bias in rate reductions that would be produced by applying MMM without a length of haul adjustment.

E. THE BOARD SHOULD MODIFY ITS APPLICATION OF ATC.

In BNSF's October 22, 2007 Petition for Reconsideration, BNSF argued that the Board was incorrect to modify ATC from its original form, as adopted in Ex Parte No. 657 (Sub-No.1). BNSF demonstrated that the modified ATC approach departs from the basic rationale for adopting ATC in the first place, which was to avoid distortions created by the use of cross-over traffic in a SAC analysis by allocating revenues on cross-over traffic based on relative on-SARR and off-SARR costs. As BNSF showed, modified ATC significantly biases the revenue allocation in favor of the SARR because it no longer allocates revenues in proportion to total costs, both fixed and variable [6] Moreover, BNSF pointed out that the concern leading the Board to adopt a modified form of ATC – that relatively low-rated traffic that might become unprofitable under application of ATC – was based on the mistaken premise that a SARR's costs were the same as the incumbent's. As BNSF explained, the Board appeared to be concerned that application of ATC would produce revenues in some cases that were below the incumbent's

[6] BNSF Petition for Reconsideration, at 11-16.

variable costs. But clearly the correct measure of whether traffic is making a contribution to the SARR is whether the traffic is covering *the SARR's* costs

The Board did not address these arguments, but rather continued to claim that it is unfair to use a revenue allocation formula (original ATC) that may allocate revenue to traffic on a high density line segment that is insufficient to cover the traffic's variable costs. The Board completely ignored BNSF's argument that traffic generating revenues below the *incumbent's* variable costs may well make a substantial contribution to the *SARR's* costs, since a SARR generally has significantly lower costs than the incumbent.

In any event, when it permitted WFA/Basin to reconfigure its traffic group, the Board also provided WFA/Basin the opportunity to remedy the fairness problem perceived by the Board: inclusion of low-rated traffic that might become unprofitable if ATC were applied. To the extent the Board had a valid concern that ATC may have made certain traffic no longer profitable to the SARR, that concern could be addressed either by applying a modified form of ATC to avoid forcing the SARR to handle unprofitable traffic, or by allowing the complainants to change the traffic group and eliminate traffic that was not profitable under ATC. But it makes no sense for the Board to take both steps. WFA/Basin took the opportunity offered by the Board and eliminated certain traffic from its traffic group that WFA/Basin no longer wanted the SARR to handle. As a result, the problem perceived by the Board no longer exists. If the Board were now to apply modified ATC in addition to giving WFA/Basin an opportunity to change the traffic group, the Board would be correcting a problem that no longer exists and providing a revenue windfall to the SARR.

In addition, BNSF explains below in Section III.A.3.c.ii that ATC should be applied using the incumbent's densities for all segments, both on and off SARR. In addressing whether

costs for fictitious interchanges should be included when calculating ATC, the Board confirmed that ATC is intended to allocate *the incumbent*'s total costs between segments. *September 2007 Decision* at 12. BNSF's total costs depend on the density of the lines over which its traffic moves, not on the traffic density of the hypothetical SARR. Moreover, a primary motivation for the adoption of ATC was the need to reflect the impact of densities on costs. It would be inconsistent with the stated objective of ATC – the allocation of revenues based on the *incumbent's* costs – and the need to reflect the impact of densities to use the densities of the SARR rather than the densities of BNSF.

Finally, ATC should be calculated using unmodified URCS costs for the base year, as the Board directed. WFA/Basin recalculated URCS for the base year, apparently to incorporate a CAPM-based cost of equity. WFA/Basin did not explain why this modification was appropriate, or even mention the modification in their narrative. WFA/Basin should not be permitted to make surreptitious modifications to their opening evidence and then attempt to provide a justification at a later point when BNSF has no opportunity to respond. In any event, WFA/Basin's attempt to recalculate URCS using a revised methodology is outside the scope of this proceeding and would be inappropriate. (BNSF discusses in detail below in Section I.G why, as a matter of law and policy, the Board should not restate prior year cost of capital determinations for any reason.)

F. MODEST CHANGES SHOULD BE MADE TO WFA/BASIN'S OPERATING AND CONSTRUCTION COSTS.

The Board's *September 2007 Decision* made it clear that the parties were required to use, in preparing supplemental evidence, the methodologies for determining SAC costs and the specific unit costs that were set out in the *September 2007 Decision*. As a result of the strict limits on changes to the underlying SAC cost assumptions, WFA/Basin's supplemental evidence raises relatively few issues relating to the calculation of SAC operating and construction costs.

BNSF's analysis of WFA/Basin's operating cost assumptions is set out in Sections III-C and III-D, and BNSF's analysis of WFA/Basin's construction cost assumptions is set out in Section III-F. The principal changes BNSF has made to those cost assumptions are described briefly below.

1 Operating Costs

WFA/Basin posit a new SARR that is built out from Guernsey, WY, where the original SARR terminated, to Northport, NE. At Northport, the SARR is assumed to interchange traffic with both the UP (the Jeffrey movement) and BNSF (all other traffic). As discussed in Section III-C below, the arrangements assumed by WFA/Basin for these complex interchange operations are inadequate. WFA/Basin's operating plan ignores a multitude of time-consuming tasks that must be performed to interchange traffic in a congested area where, under WFA/Basin's new SAC assumptions, three railroads cross each other's tracks. BNSF's operating costs include the additional time and associated costs that would be incurred to perform extensive interchange operations at Northport.

BNSF's witness David Wheeler also reviewed WFA/Basin's RTC analysis and found a number of problems in the coding of the RTC model. BNSF corrected those errors and performed a new RTC analysis. The new analysis included the additional dwell times and transit times associated with the Northport problems discussed above. The results of BNSF's revised RTC analysis were used to produce new operating statistics and new operating costs.

In addition, BNSF identified a serious flaw in WFA/Basin's new operating plan, which assumes that all loaded trains would be handled by crews whose home base is at the new Orin yard In WFA/Basin's prior operating plan, crew bases were located in the northern PRB and the southern PRB to facilitate efficient service across the entire PRB. In WFA/Basin's new operating plan, all train crews that originate loaded trains go on duty at Orin and are taxied to the

mines, where they board the train. BNSF's operating experts determined that for loaded trains originating at mines in the northern PRB, the combined highway time and train transit time to Orin would exceed the federally mandated maximum 12 hour shift requirement. Therefore, BNSF added costs to account for the replacement of these outlawed crews with new crews.

On MOW costs, WFA/Basin understated MOW costs for the reconfigured LRR by $2.5 million. In their TSO evidence, WFA/Basin proposed a MOW force for the extended LRR that included fewer personnel (107) than those approved by the Board for the LRR as originally designed (111), and lower costs ($13.4 million) than the Board-approved costs ($16.0 million) despite the fact that the reconfigured LRR was 92 miles longer, and had virtually the same track miles. WFA/Basin did not even attempt to show why a significantly longer railroad, with the same number of track miles extended over a greater geographic area would justify staff reductions. Staff reductions could not be based on lower tonnages since – unlike the contracted services such as rail grinding – the activities of the core MOW force are not driven by tonnage. WFA/Basin's proposed staffing was also inconsistent with approaches that were settled by the Board's *September 2007 Decision*, in particular the Board's approval of 3-man system crews. BNSF's MOW expert, Gerald Albin, revised WFA/Basin's staffing assumptions to make them consistent with the Board's *September 2007 Decision* and with the requirements of the extended LRR.

The additional operating costs associated with the issues discussed above, as well as a number of additional operating cost changes identified by BNSF's experts, are reflected in Table III.D-1.

2. Construction Costs

BNSF's construction cost expert, Cassie Gouger, determined that WFA/Basin understated road property investment costs for the new LRR by $31.8 million. The most significant understatement was associated with the costs of bridges and overpasses WFA/Basin failed to take proper account of the three drainages that run through the area they selected for the Orin Yard. WFA/Basin proposed to convert three three-span bridges over those drainages with lengths of 102, 82 and 52 feet to 96" box culverts In SAC cases, bridges of less than 20 feet are generally converted to box culverts, but bridges of these lengths are not converted to culverts, nor should they be. WFA/Basin claims that these bridges cross only ditches, but their own images of the area used in developing the yard clearly show that the three drainages flow into Shawnee Creek, which in turn flows into the North Platte River. BNSF's expert Ms. Cassie Gouger demonstrated why these bridges could not be converted to culverts. Moreover, all of the 20 yard tracks proposed by WFA/Basin in Orin Yard would have to cross these drainages. BNSF therefore added the bridges necessary to cross the drainages

WFA/Basin also failed to provide vehicle access from public roads into the Orin yard. Roadways are necessary for the vehicles and machinery operated by both railroad employees and non-railroad employee contractors and venders To access the headquarters, locomotive shop, car shop, fueling fixtures and other yard buildings, access roads were provided, with grade separated crossings at the mainline tracks. At the west end, a bridge was constructed for the crossing, while at the east end a 508 LF 14' x 14' box culvert was used. There was also a need for vehicle crossings over the drainage areas in order to provide fueling by fuel truck to locomotives on yard tracks other than those with fixed fueling facilities, and to provide for maintenance and other operating personnel to access the area between the tracks

BNSF made several other road property adjustments, which are described in detail in Section III-F of the Narrative A comparison of BNSF's and WFA/Basin's road property costs is contained in Table III.F-1.

G. NO CHANGE SHOULD BE MADE IN THE TREATMENT OF THE SARR'S COST OF CAPITAL FOR PURPOSES OF THIS SUPPLEMENTAL EVIDENCE.

In its *February 2008 Decision* in this case, the Board asked the parties to comment in their supplemental evidence on two general issues concerning the cost of capital assumptions to be used in the DCF analysis of WFA/Basin's supplemental SAC evidence. First, the Board sought the parties' views concerning whether the industry cost of capital used in the DCF model for 2002 through 2005 should be replaced with revised calculations using the CAPM model. Second, the Board sought input on whether the forecasted cost of capital used in the DCF model should be based on an average of the years for which there is a Board-determined industry cost of capital, which is the Board's existing practice, or instead whether the Board should use the 2006 CAPM-based cost of equity as a stand-alone proxy for the SARR's future cost of capital.

As explained below, the Board is legally bound by its final determinations of the industry cost of capital for 2002 through 2005. It would be unlawful for the Board to make ad hoc recalculations of prior year cost of capital determinations in the context of individual rate cases and to ignore the Board's prior determinations that had, and still have, the force of law. Even if it were permissible retroactively to change prior cost of capital determinations, it would not be lawful to make those changes through a collateral attack on prior final determinations in the context of rate cases.

Independent of the legal reasons for adhering to the Board's actual cost of capital determinations for 2002-2005, the Board should continue to use the historical cost of capital that

was determined in prior proceedings. As explained by BNSF's finance experts, *ex post* adjustments to prior cost of capital determinations undermine the predictability of regulatory returns on railroad investments and thereby could discourage investments by increasing uncertainty and risk.

Finally, as to the proper methodology to forecast the SARR's future years' cost of capital, the Board should continue to use the average of all historical year cost of capital determinations. The use of a single year CAPM cost of capital calculation (or even two years if a 2007 cost of capital determination is available) would not be a reliable or appropriate basis for forecasting the SARR's cost of capital for several years into the future, particularly in light of the Board's pending rulemaking proceeding in which the Board is considering adoption of a hybrid CAPM/Multi-stage DCF approach for future years.

1. No Change Should be Made to the Board's Historical Year Cost of Capital Determinations.

a. The Board's Prior Year Cost of Capital Determinations had the Force of Law and Cannot be Attacked Collaterally in this Proceeding.

Agencies obtain their authority to act pursuant to a delegation of authority from Congress. *American Library Ass'n v. FCC*, 406 F.3d 689, 691 (D.C. Cir 2005) ("It is axiomatic that administrative agencies may issue regulations only pursuant to authority delegated to them by Congress."). When an agency makes a determination pursuant to Congress' delegated authority, the agency is acting on behalf of Congress and the agency's determination has the force of law Therefore, agency determinations made pursuant to their delegated, quasi-legislative authority bind parties, courts, and the agencies themselves.

Since an agency determination has the force of law, an agency cannot ignore or disregard its prior determinations in adjudicating individual disputes. When an agency makes a quasi-

legislative determination, such as by adopting a rule or regulation, the agency is bound by that determination. The courts have repeatedly found that an agency is required to follow the rules and regulations it establishes and it cannot make ad hoc exceptions or departures. "An agency is bound by its regulations so long as they remain operative. . . ." *Romeiro de Silva* v. *Smith*, 773 F 2d 1021, 1025 (9th Cir. 1985). "It has become axiomatic that an agency is bound by its own regulations." *Panhandle Eastern Pipe Line Co. v. FERC*, 613 F.2d 1120, 1135 (D C. Cir. 1979); *Reuters Ltd. v. FCC*, 781 F 2d 946, 950 (D.C. Cir. 1986) ("it is elementary that an agency must adhere to its own rules and regulations").

This principle has its roots in *Arizona Grocery Co. v. Atchison, Topeka & Santa Fe Railway Co.*, 284 U.S. 370 (1932). There, the Court addressed Congress' delegation of authority to the ICC to set maximum reasonable rates. As the Court explained, "[w]hen under this mandate the Commission declares a specific rate to be the reasonable and lawful rate for the future, it speaks as the Legislature, and its pronouncement has the force of a statute." *Id.* at 386 The Court found that as a result of the quasi-legislative nature of the ICC's rate determinations, the ICC was bound by those determinations and "it may not in a subsequent proceeding . . ignore its own pronouncement " *Id.* at 389. In making future determinations, the ICC was "bound to recognize the validity of the rule of conduct prescribed by it." *Id.*

Arizona Grocery dealt specifically with ICC rate prescriptions, but the principle that an agency speaks "as the Legislature" when it issue rules and regulations applies broadly to all of an agency's quasi-legislative determinations The principle established in *Arizona Grocery* is that when an agency acts pursuant to its delegated authority, it establishes binding law. As the courts have found, "[a]d hoc departures from [an agency's] rules, even to achieve laudable aims, cannot be sanctioned, for therein lie the seeds of destruction of the orderliness and predictability which

are the hallmarks of lawful administrative action." *Reuters*, 781 F 2d at 950-51 (internal citation omitted).

Arizona Grocery also establishes limits on the ability of agencies retroactively to modify quasi-legislative determinations. The Court in *Arizona Grocery* stated that the agency is bound by its prior orders as long as those orders remain in existence, and that the agency may only "repeal the order as it affected future action. ." 284 U.S. at 389. Thus, in the context of a rate determination, *Arizona Grocery* established the well known rule that an agency cannot retroactively modify a lawful rate that was in effect historically, regardless of whether the agency later decides that the rate was incorrect Similarly, an agency cannot award damages based on assumptions that are contrary or inconsistent with the agency's prior determinations. In *Arizona Grocery*, the ICC had prescribed three different rates over a period of several years. When it later determined that a prior rate had been incorrectly set, the ICC awarded reparations based on what the ICC concluded should have been the proper rate. *Id.* at 381-82. The Court struck down the reparations award. It was irrelevant whether the prior rate was correct or incorrect. That prior rate established the legal rights for the period of time covered by that prior rate, and the ICC was bound by it.

Each year, the Board makes a determination of the railroad industry cost of capital to be used for regulatory purposes. As the Board explains,

> This determination is one component used in evaluating the adequacy of individual railroads' revenues each year under the procedures and standards mandated by Congress.... The cost-of-capital finding may also be used in other regulatory proceedings, including, but not necessarily limited to, those involving the prescription of maximum reasonable rate levels, the proposed abandonment of rail lines, and the setting of compensation for disputed trackage rights fees.

Cost of Capital – 2005, STB Ex Parte No. 558 (Sub-No.9), slip op. at 1 (STB served Sept. 20, 2006).

These annual determinations have the force of law and are binding on the Board and parties to proceedings before the Board. Once the Board makes a determination and it becomes final, parties in individual cases cannot contest it. Similarly, because the Board's determinations have the force of law, it would clearly be legal error for the Board to make decisions based on assumptions contrary to its cost of capital determination. A cost of capital determination for a particular year is subject to appeal, and the filing of a petition for review leaves open the possibility of a retroactive change. But once the determination becomes final, either because no appeal was sought or the appeal was terminated, then the determination must be followed by the Board in making regulatory findings and decisions where the railroad industry cost of capital is relevant. Ad hoc departures from these binding determinations are not lawful. The Board cannot ignore its prior determinations, which continue to have the force of law.

The principles of *Arizona Grocery* further suggest that once an agency makes a quasi-legislative determination, such as the Board's cost of capital determination, that determination cannot retroactively be modified. A determination that has the force of law creates rights and obligations that cannot be undone or undermined through subsequent modifications. *Arizona Grocery* made it clear that no retroactive changes in rate-related determinations are permissible, whether or not the agency subsequently determines that a mistake was made or that the prior determinations were inappropriate. There is no reason to apply this principle only to rate-related determinations. Thus, to the extent this principle applies to all quasi-legislative determinations, including the Board's annual cost of capital determinations, *Arizona Grocery* would preclude any subsequent modification of the Board's prior cost of capital determinations, even through a

formal reopening of the final determination. The *Arizona Grocery* principles would suggest that the Board can modify its future cost of capital determinations, as the Board did when it decided to discontinue the use of a single-stage DCF model, but the Board cannot change retroactively its prior determinations, which had the force of law while they were in effect.

Moreover, even if final cost of capital determinations could be retroactively changed, it would not be lawful to make those changes on an ad hoc basis in this proceeding without formally reopening prior year determinations. It is clear that such a collateral attack on the prior determinations, which had and continue to have the force of law, would be unlawful. The Board cannot simply ignore its prior determinations and assume something inconsistent with those prior determinations. As long as those determinations are in effect, the Board is bound by them.

Thus, if the Board had authority to give retroactive effect to a restatement of its prior determination of the railroad industry cost of capital for a particular year, which BNSF does not believe it has, the Board could not do so in the ad hoc fashion proposed here. The Board has rules governing the reopening of final agency decisions, and it cannot ignore those procedural rules and simply restate a prior year cost of capital based on a unilateral decision that the prior determination was incorrect. The Board's rules governing reopening ensure that changes in final decisions are made through a deliberate process that allows all interested parties to present their views. Moreover, the Board's experience in *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, STB Ex Parte No. 664, slip op. at 11-12 (STB served Jan. 17, 2008) ("Ex Parte No. 664") demonstrates that a wide variety of issues must be considered in assessing the reasonableness of any change in the methodology used to determine the railroad industry cost of capital. It would be arbitrary and irrational to make decisions in the absence of a full consideration of those issues.

WFA/Basin argue that a restatement by the Board of its prior year cost of capital determinations would be consistent with the Board's decision in Ex Parte No. 657 (Sub-No.1) to apply new SAC methodologies to pending cases and its decision in Ex Parte No. 646 to apply a new methodology to calculate the benchmarks used in simplified SAC cases. WFA/Basin TSO Nar at I-19 to 20. But WFA/Basin confuse the Board's authority to act in a quasi-judicial capacity and the Board's authority in the quasi-legislative context There is a fundamental difference between an agency's actions in a quasi-legislative capacity, when the agency speaks "as the Legislature" and creates binding law, and when an agency resolves a dispute between parties in a quasi-judicial capacity. An agency has significant discretion to apply existing law to the facts in individual cases. Therefore, within certain limits, agencies may change methodologies used to adjudicate disputes and apply the new methodologies in pending cases *See, e.g., AT&T Co. v. FCC*, 454 F.3d 329, 332 (D.C. Cir. 2006); *Clark-Cowlitz Joint Operating Agency v. FERC*, 826 F.2d 1074, 1081 (D.C. Cir. 1987) (en banc). For this reason, the D.C. Circuit upheld the Board's application of new SAC methodologies in the pending *WFA/Basin* and *AEP Texas* rate cases. But with respect to quasi-legislative determinations that have the force of law when they become final, an agency is bound to follow and apply those pronouncements as long as they are in effect.

The Board's cost of capital determinations are properly viewed as quasi-legislative determinations that are used in adjudications, in particular in rate reasonableness proceedings. The Board's cost of capital determinations are not up for grabs in individual disputes on a case-by-case basis. As noted above, the Board expressly states in its annual cost of capital determinations that the determinations will be used in rate reasonableness cases. Clearly, the expectation is that the determinations will be used without making changes in individual cases

Indeed, if the Board were to view the cost of capital as a factor to be determined in individual rate reasonableness adjudications, it would not be appropriate to limit the inquiry to changes in the cost of capital determination driven by the adoption of the CAPM model. If the Board sought to determine the SARR's cost of capital in each rate case, rather than use the industry cost of capital previously determined by the Board, it would be necessary to consider a variety of factors that would affect a SARR's cost of capital. For example, the SARR posited by WFA/Basin relies entirely on coal. But a coal-only railroad could have a significantly higher risk for investors relative to an investment in a railroad hauling diversified commodities. Among other things, the future risk of legislation on green house gas would indicate a higher cost of capital for a coal-only SARR.

The Board does not assess the SARR's cost of capital in a quasi-judicial capacity on a case-by-case basis, and the Board has not proposed to adopt such an approach in this case. Rather, the Board applies the railroad industry cost of capital determined in the Board's quasi-legislative capacity, and it should continue to do so here without making ad hoc changes to its prior determinations.

b. <u>There is no Valid Reason for Recalculating Prior Year Cost of Capital Determinations.</u>

While WFA/Basin purport to make several arguments in favor of making changes to the historical cost of capital determinations in this case, their arguments boil down to a claim that prior year determinations should be restated because the DCF-based results were flawed and the CAPM model produces more accurate results.[7] But WFA/Basin mischaracterize the Board's

[7] WFA/Basin's argument that continued application of prior year cost of capital determinations is an "entry barrier" because those determinations supposedly exceed the real world railroads' cost of capital is just another variation on their basic argument that the DCF-based estimates were inaccurate or flawed.

reasons for adopting a new cost of capital methodology. The Board did not abandon the DCF approach because the Board concluded that it had produced flawed or inaccurate results in the past Instead, the Board decided that CAPM represented a superior approach going forward. "Our decision to conduct a broader rulemaking is not an admission that the existing approach is flawed, but instead a prudent exercise of our regulatory responsibility to explore whether there are superior alternatives available..." *Cost of Capital – 2005*, STB Ex Parte No. 558 (Sub-No. 9), slip op. at 3-4 n.2 (STB served Feb. 12, 2007).

The Board adopted the CAPM model because "modern finance practices have changed since the last time the agency reviewed its cost of capital methodology" and the Board sought to "modernize our approach" to calculating the cost of equity. Notice, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, STB Ex Parte No. 664, slip op. at 4-5 (STB served Aug. 20, 2007) ("*Ex Parte No. 664 Notice*"). The Board was not motivated by a fundamental flaw in its older calculations, but by a conclusion that developments in finance practices justified a change in its existing approach. The Board has acknowledged that both the DCF and the CAPM models "are plausible and intuitive, but are merely models." Advance Notice of Proposed Rulemaking, *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, STB Ex Parte No 664 (Sub-No.1), slip op. at 2 (STB served Feb. 11, 2008) ("*ANRP Ex Parte No. 664 (Sub-No.1)*").

The actual cost of equity capital for the railroad industry cannot be determined with precision. The use of a model to estimate the industry's cost of capital at best identifies a relevant range of cost of capital estimates *See, e g., Verified Statement of Stewart C. Myers*, at 3-4, 8, 14-15, filed on behalf of Association of American Railroads in STB Ex Parte No. 664 (filed Sept. 27, 2007) and *Reply Verified Statement of Stewart C. Myers*, at 7-9, filed on behalf of

Association of American Railroads in STB Ex Parte No 664 (filed Oct. 29, 2007). Indeed, the Board acknowledged that the use of different models just produces different estimates of an inherently uncertain value: "While the cost of debt is observable and readily available, the cost of equity (the expected return that equity investors require) can only be estimated. Because the cost of equity cannot be directly observed, estimating the cost of equity requires adopting a finance model and making a variety of simplifying assumptions." Ex Parte No. 664 at 3. Thus, while the DCF model may produce a different estimate of the railroad industry cost of capital than the CAPM model, it would not be appropriate to consider the prior DCF-based estimates to be flawed or inaccurate, and there is no record support for such a conclusion.

A major reason for changing the cost of capital methodology going forward was that the DCF-based approach had recently produced substantial swings in the railroad industry cost of capital. While the DCF-based results had been stable for several years prior to 2005,[8] between 2003 to 2005, the cost of capital increased from 9.4% to 12.2%, an increase of nearly 30%. In the one year between 2004 and 2005, the DCF-based cost of capital increased by more than 20%. These significant increases over a short period of time raised a question as to the continued appropriateness of the DCF model for *future* year calculations, but it did not call into question prior year calculations, which had been relatively stable. Had the Board considered changing the cost of capital methodology in years prior to 2005, it would not have been troubled by any instability or sudden increases in cost of capital.

Thus, there is no reason to believe that the Board would have changed its cost of capital methodology had it addressed the issue in any year prior to 2005. The Board adopted a new cost of capital model going forward because the Board concluded that the CAPM model would be a

[8] Indeed, from 2000 through 2003, the rail industry cost of capital determined by the Board using the DCF model declined in every year.

better predictor of the railroad industry cost of capital *in the future* The Board did not conclude that the CAPM model would have been a better model to use in the past or that the use of the DCF model produced flawed or inaccurate results for the prior years in which the DCF model was used.

c. Restating Historical Year Cost of Capital Determinations Would Undermine the Important Policies of Predictability and Certainty in Regulation of Railroad Markets.

BNSF's finance experts, Professor Robert S. Hamada, the Edward Eagle Brown Distinguished Service Professor Emeritus of Finance and former Dean at The University of Chicago Graduate School of Business, and Rajiv B. Gokhale, Senior Vice President of Compass Lexecon, address in Section III-G below WFA/Basin's proposal to change the Board's historical year cost of capital determinations for purposes of the SAC evidence in this case. Hamada/Gokhale explain that WFA/Basin's proposal to make *ex post* adjustments to settled determinations of the railroad industry cost of capital would undermine investor expectations and create uncertainty that could discourage investment in the rail industry. Hamada/Gokhale point out that the Board has repeatedly, and correctly, recognized that predictability in the Board's calculations of the railroad industry cost of capital is important to investors in railroads:

> [P]redictability is particularly important with regard to the cost of capital, as this calculation reflects the return the Board will permit carriers to earn on their capital investments and will therefore influence their investment decisions.

Ex Parte No. 664 at 11-12.

Since investments are made in part based on the Board's regulatory determinations of the railroad industry cost of capital, *ex post* changes in those calculations undermine the assumptions on which investments were made Investors understand that regulatory changes may be made

going forward that could affect the attractiveness of future investments. But if investors become concerned that the regulatory agency will make *ex post* changes that affect sunk investments, they will become reluctant to make further investments. As Hamada/Gokhale explain,

> *Ex post* regulatory changes that affect the returns to investments already undertaken—investments which from the investors' perspective are "sunk" and cannot be easily undone— introduce an arbitrariness to the process and penalize (if the cost of capital is *ex post* reduced) investors on the investments they have already made, like a bait and switch.

Hamada/Gokhale V.S. at ¶ 17 (Exhibit III-G.1).

Moreover, as noted above, there is no reason to believe that the Board would have concluded prior to 2005 that the DCF-based approach needed to be changed as the basis for estimating the railroad industry cost of capital. But even if the Board had previously decided to adopt the CAPM model, Hamada/Gokhale explain that there is no reason to believe that the Board would have adopted the same approach to implementing the CAPM model that the Board adopted in Ex Parte No. 664. As the Board is aware from the comments it reviewed in that proceeding, there is substantial debate in finance circles over the proper inputs to a CAPM model. Had the Board addressed the implementation of a CAPM model in the railroad industry during a prior time period, the debate over proper inputs could well have been influenced by the existing or recent economic conditions in the economy as a whole or in the railroad industry. As Hamada/Gokhale conclude:

> There is no basis to assume ex post that the cost of equity capital using a model and inputs that the Board has determined are appropriate now—with no consideration for whether the same inputs would have been appropriate in earlier periods—would be applicable to earlier years, and whether the current models and inputs would yield a cost of capital that is consistent with investors' expectations at the earlier time.

Hamada/Gokhale V.S. at ¶ 22 (Exhibit III.G-1).

Finally, Hamada/Gokhale urge the Board to consider the policy implications of allowing the complainant in a particular SAC case to make *ex post* changes in a settled cost of capital determination They explain that a decision by the Board to allow different cost of capital assumptions to be used by different parties in different contexts would lead to asymmetric, unpredictable and unfair regulatory results. It would also encourage a variety of other interested parties to seek a reopening of prior determinations, potentially leading to an overwhelming number of requests for *ex post* adjustments.

Moreover, allowing *ex post* changes to prior determinations could discourage the Board from making appropriate changes in methodology going forward to avoid disputes about reopening prior decisions. The Board should avoid creating a precedent in this case that would encourage parties to seek a retroactive change in settled cost of capital determinations every time the Board changes its methodology going forward. Such a precedent could make the Board reluctant in the future to make changes that are otherwise justified. Indeed, if the Board were to accept a reopening of prior cost of capital determinations every time a prospective change in methodology were adopted, it could lead to yet another round of changes in the SAC calculations in this case if the Board were to adopt a hybrid CAPM/Multi-stage DCF methodology in Ex Parte No. 664 (Sub-No.1).

2. <u>The Board Should Continue to Use its Existing Methodology to Forecast the SARR's Future Cost of Capital Based on the Average of its Actual Cost of Capital Determinations Beginning in 2002.</u>

The Board also asked the parties whether the Board should continue to apply its existing methodology for forecasting the SARR's future year cost of capital based on an average of several historical year cost of capital determinations or use only a single year's cost of capital –

for the year 2006 – as the basis for future cost of capital forecasts. BNSF believes the Board should continue to use its existing methodology.

The Board has repeatedly stated that forecasts should be based on as many years' data as possible. Forecasts based on a single year, or a small number of years, tend to perpetuate the peculiar circumstances of those years and therefore are likely to distort the forecast. Forecasts based upon historical averages neutralize the extremes or peculiarities in particular years Thus, in *West Texas Utilities v. Burlington Northern Railroad Co.*, 1 S.T.B. 638 (1996), the Board stated that its approach is to rely on historical averaging where possible:

> Because equity costs fluctuate from year-to-year, we estimate the cost of equity for future time periods using an average of a known historical period. Absent evidence projecting the cost of equity for the future, the cost of equity over several years provides a more reliable estimate of future equity costs. Using data for a single year increases the risk that the single period is aberrational. Thus, we see no reason to depart from past precedent of using the average for a known historical period

Id. at 713.

The Board has consistently held to this approach and recently reiterated the importance of using as many years as possible in forecasting future year cost of capital in its September 2007 decision in the *AEP Texas* case. *AEP Texas North Co. v. BNSF Railway Co.*, STB Docket No. 41191, slip op. at 108 (STB served Sept. 10, 2007). There, AEP Texas sought to use a single year's cost of equity (later modified to include two additional years) in forecasting the SARR's cost of capital. AEP Texas apparently sought to avoid the impact of a relatively high cost of capital for the year 2005 The Board rejected AEP Texas' attempt to reduce the number of years included in the average used to forecast the SARR's cost of capital, noting that "the cost of equity dipped in 2002 through 2004 (the years AEP Texas relies on) but then increased in 2005 back to levels more in line with the pre-2002 years, suggesting that the years AEP Texas used

may have been an aberration. In any event, as many years as possible should be examined to derive a more accurate average." *Id.* at 107-08.

There is no reason to depart from that well established approach. As noted above, while the Board has decided to use the CAPM model for cost of capital determinations going forward, the Board never concluded that prior estimates of the railroad cost of capital were flawed, inaccurate or misleading. The Board was not motivated by a fundamental flaw in its older calculations, but by a conclusion that developments in finance practices justified a change in its existing approach. The Board adopted the CAPM model because "modern finance practices have changed since the last time the agency reviewed its cost of capital methodology" and the Board sought to "modernize our approach" to calculating the cost of equity. *Ex Parte No 664 Notice* at 4-5.

Moreover, it would be particularly inappropriate for the Board to base its forecast of the SARR's cost of capital on the year 2006 calculations (or the years 2006 and 2007, if the 2007 cost of capital has been established by the time a decision is issued in this case) in light of the fact that the Board is continuing to investigate alternatives to the sole use of a CAPM model in estimating the railroad industry cost of capital. The Board announced in its February 11, 2008 Advance Notice of Proposed Rulemaking that it was exploring the possibility of supplementing its CAPM approach with a multi-stage DCF analysis. *ANRP Ex Parte No 664 (Sub-No.1)* at 2-4. Whether or not the Board adopts a hybrid approach in the pending rulemaking, the Board's willingness to consider alternatives to its existing CAPM model reflects an understanding that the CAPM model is just one of multiple approaches to estimating the railroad industry cost of capital. The actual cost of capital of the railroad industry falls within a potentially wide range of values, as estimated by different models. Under these circumstances, the most appropriate way

to forecast future years' cost of capital is to use all of the prior year determinations that are relevant to the case. The Board should not artificially constrain itself to the most recent annual determinations simply because those are based on its current CAPM model.

H. RESULTS OF A MODIFIED SAC ANALYSIS

As discussed above, WFA/Basin did not comply with the limited scope of this reopening and as a result the Board should reject WFA/Basin's supplemental evidence and terminate this proceeding. However, if the Board considers WFA/Basin's supplemental evidence, the Board should make the changes to WFA/Basin's assumptions and calculations that are described in this Reply Evidence and Argument. As shown in Table III.H-1, WFA/Basin are not entitled to relief under a properly conducted SAC analysis. The specific assumptions underlying the results set out in Table III.H-1 are described in Section III.H.1. In addition, Exhibit III.H-2 shows the cumulative effects of the revenue and cost changes described by BNSF in this Reply Evidence and Argument.

I. NO REPARATIONS SHOULD BE ORDERED FOR MOVEMENTS OCCURRING BEFORE THE DATE OF THE *SEPTEMBER 2007 DECISION.*

There has already been a SAC decision in this case based on a fully developed record. In the *September 2007 Decision*, the Board found that WFA/Basin's original SAC presentation failed to demonstrate that the challenged rates were unreasonable. Under the statute governing the establishment of rail rates, that finding made the challenged rates the lawful rates that are not subject to retroactive change. While the Board also indicated that it would revisit that conclusion based on a reopened record, any subsequent decision could not, under *Arizona Grocery Co. v. Atchison, Topeka & Santa Fe Railway. Co.*, 284 U.S. 370 (1932), retroactively affect the lawfulness of rates charged before the *September 2007 Decision*. As a matter of law, any rate

prescription established by the Board on the basis of this reopened record can only have prospective effect from the date of the *September 2007 Decision*, and no reparations can be ordered for movements occurring before the date of that decision.

Fairness also requires that any relief in this case be prospective from the date of the *September 2007 Decision*. WFA/Basin had a full and fair opportunity to show that the challenged rates were unreasonable and they did not prevail. The Board was not required to give WFA/Basin a second chance to file SAC evidence. While the Board thought fairness dictated giving WFA/Basin a second chance, fairness does not require that the Board undo its first decision. It would be particularly unfair for the Board to accept WFA/Basin's fundamental changes in SAC assumptions in this limited reopening and then apply the results of their new SAC case to movements occurring before September 2007, when the Board rejected WFA/Basin's original SAC case. In light of the policies of repose and expedition reflected in the statute, fairness dictates that the effect of any decision in this reopening of the record apply only to rates assessed on movements occurring after the *September 2007 Decision*.

1. *Arizona Grocery* Precludes Giving Retroactive Effect to Any Rate Prescription Resulting from this Phase of the Proceeding.

When an agency approves a carrier's rate, that rate becomes the lawful rate and no reparations can be awarded based on a shipper's payment of the rate. *Arizona Grocery*, 284 U.S. at 387-88. If the agency later concludes on the basis of new evidence that the lawful rate was incorrect or inappropriate, the agency may only change the rate prospectively. The Supreme Court definitively ruled in *Arizona Grocery* that the ICC, now the Board, is without authority "to award reparations with respect to shipments which moved under rates approved or prescribed by it." *Id.* at 381.

The Board's *September 2007 Decision* finding that WFA/Basin failed to carry their burden of proving that the challenged rates were unreasonable constitutes an approval of the challenged rates under the statutory scheme that exists today. In the 4R Act and the Staggers Act, Congress sought to give railroads greater authority to establish the rates to be charged for transportation and strictly to limit the authority of the ICC and the Board to set a railroad's rates. The statute therefore states 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 existing statute does not require express approval by the Board. Under the existing statute, the rate established by the railroad is the lawful rate unless the Board determines, in an investigation initiated by a complaint, that the complainant has proven that the rate violates the statutory reasonableness requirement. 49 U S C. §10704(a). If the complainant fails to carry its burden of proof, the rate is the lawful rate subject to full protection under *Arizona Grocery* against retroactive assessment of reparations.

The Board's *September 2007 Decision* found that the challenged rates did not violate the statute's reasonableness requirement. The Board stated without qualification that "the complainant has failed to establish that the challenged rates are unreasonably high." *September 2007 Decision* at Title Page. The Board concluded that "[t]he record does not support WFA's claims." *Id.* at 2. The *September 2007 Decision* was based on a full evidentiary record The Board resolved all evidentiary disputes and all disputes regarding the application of SAC principles. There were no issues left open or unresolved. The Board instructed the parties to file petitions for reconsideration if they believed the Board had erred in reaching the conclusions set forth in the decision, and the deadlines for seeking reconsideration were "not stayed pending possible supplemental evidence from WFA " *Id* at 20 n.28.

The *September 2007 Decision* therefore conclusively resolved the question of rate reasonableness based on the record before the Board at that time. If the Board had not reopened the proceeding by giving WFA/Basin the opportunity to file new evidence, the proceeding would have concluded with the determination that the challenged rates were reasonable and lawful. The Board itself stated that if WFA/Basin chose not to submit new evidence, the Board would "discontinue this proceeding." *Id.* at 20.

The legal consequences of that conclusive determination might have been undermined or suspended if the Board had concluded that it was required to give WFA/Basin another opportunity to file SAC evidence due to a procedural flaw or legal error. But the Board did not believe that it was required to give WFA/Basin another opportunity to file SAC evidence. The Board made it abundantly clear that it did not believe that WFA/Basin was entitled to a second chance as a matter of law The Board's decision to give WFA/Basin a second chance was a discretionary act based on considerations of "fairness." *Id* at 20. That discretionary act should not alter the legal effect of the Board's conclusion in the *September 2007 Decision* that the challenged rates had not been shown to be unreasonable.

Indeed, the Court in *Arizona Grocery* made it clear that an agency's decision to consider new evidence and possibly to reach a new decision on the reasonableness of a challenged rate does not affect the legal consequences of the agency's prior rate reasonableness decision. An agency is free to consider new evidence and to change a decision going forward, but it may not retroactively modify a decision relating to the reasonableness of a rate based on new evidence:

> Where the Commission has, upon complaint and after hearing, declared what is the maximum reasonable rate to be charged by a carrier, it may not at a later time, and upon the same or additional evidence as to the fact situation existing when its previous order was promulgated, by declaring its own finding as to reasonableness erroneous subject a carrier which confirmed thereto to the payment

> of reparation measured by what the Commission now holds it should have decided in the earlier proceeding to be a reasonable rate.

284 U.S. at 388. The Court struck down the ICC's award of reparations based on new finding as to the reasonableness of rates that were the subject of a prior rate reasonableness decision, concluding that the ICC's sole option was to "repeal the order as it affected future action, and substitute a new rule of conduct . . ., but this was obviously the limit of its power." *Id* at 389.

Finally, the Board's own rules governing the reopening of rate decisions expressly provide that a new decision on the reopening of a record can only have effect from the date of the reopening. As the Board stated in its decision in Ex Parte No 657 (Sub-No.1), a reopening "transforms the ratemaking into a functionally prospective process." *Major Issues in Rail Rate Cases* at 74 (internal quotation marks omitted). Citing *Arizona Grocery*, the Board expressly stated that "the lawfulness of rates . . . cannot be challenged with respect to traffic that has moved prior to the date of a reopening." *Id.* at 73.

The Board described the supplemental proceeding as a "reopening of the record." *September 2007 Decision* at 20. Under the established principles of *Arizona Grocery*, and the Board's rules governing reopenings which are based on *Arizona Grocery*, the effect of any decision in this reopening must be limited to the time period after the Board issued its *September 2007 Decision*, which established that the challenged rates were, as of that time, lawful rates. No reparations can be awarded for movements occurring before the date of the *September 2007 Decision.*

2. If the Board Were to Consider the *September 2007 Decision* as Merely a Preliminary Decision, then the Three-Year Rule Would Require Dismissal of the Case.

Congress has provided that "it is the policy of the United States Government . to provide for the expeditious handling and resolution of all proceedings required or permitted to be brought under this part." 49 U S C. §10101(15) [9] To enforce this policy, Congress imposed strict time limits on STB proceedings. Section 11701(c) of Title 49 provides:

> A formal investigative proceeding begun by the Board under subsection (a) of this section is dismissed automatically unless it is concluded by the Board with administrative finality by the end of the third year after the date on which it was begun

The SAC proceeding below was begun under subsection (a) of 11701 when WFA filed its complaint on October 19, 2004, and the STB's investigation commenced on that date. *See* 49 C.F.R. §1111.8. The STB issued the *September 2007 Decision* on the merits of WFA's complaint one month short of the expiration of the statutory three-year period. In issuing its *September 2007 Decision*, the STB complied with the governing statute by resolving the dispute initiated by WFA's complaint within three years of the initiation of the rate reasonableness investigation. That decision concluded that WFA/Basin had failed to demonstrate that the challenged rates were unreasonable, thereby establishing that the rates were lawful rates as of September 2007.

As noted above, it is clear from the *September 2007 Decision* itself that the Board conclusively resolved the question whether WFA/Basin had shown, on the record pending before

[9] Congress' insistence on expedition in regulatory proceedings is in part linked to Congress' efforts to deregulate railroad markets and "to allow, to the maximum extent possible, competition and the demand for service to establish reasonable rates for transportation by rail." 49 U.S.C. §10101(1). Regulatory proceedings – particularly rate reasonableness challenges – can severely inhibit a railroad's rate setting initiative while a case is pending, and Congress sought to minimize that regulatory interference in transportation markets.

the Board, that the challenged rates exceed a reasonable maximum rate. While the Board reopened the record to give WFA/Basin the chance to file additional evidence, the conclusions reached in the *September 2007 Decision* were not preliminary or tentative.[10] If WFA/Basin had chosen not to pursue a reopening, the Board would have terminated the proceedings

If the *September 2007 Decision* were construed to represent the tentative or preliminary conclusions of the Board, then the proceedings would have to be dismissed under the statutory three-year rule. The statute unambiguously provides that a proceeding that is not "concluded by the Board with administrative finality by the end of the third year after the date on which it has begun" must be "dismissed automatically." 49 U.S.C. §11701(c). BNSF does not believe that the three-year rule requires automatic dismissal of the reopening because the *September 2007 Decision* was a final resolution of the rate reasonableness issue as of that date, subject to a reopening of the record and a possible modification of the decision going forward. But if the Board were to conclude that the *September 2007 Decision* had no legal effect, then the three-year rule would require dismissal.

The Board has taken the position that the three-year rule does not apply to rate reasonableness cases. In response to BNSF's Response of Movant-Intervenor BNSF Railway Company To Respondent Surface Transportation Board's Motion To Dismiss, filed in *Western Fuels Ass'n, Inc. & Basin Elec. Power Coop., Inc. v. STB*, No. 08-1167 (D.C. Cir), the Board argued that the statutory three-year rule applies "only to Board-initiated investigations and not to investigations initiated upon complaint." Board's Reply in Support of Its Motion to Dismiss,

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[10] The Board has issued preliminary, non-final decisions in other SAC cases, and the contrast between those preliminary decisions and the *September 2007 Decision* is striking. *See, e.g., Otter Tail Power Co. v. The Burlington Northern and Santa Fe Railway Co.*, STB Docket No. 42071, slip op. at 1 (STB served Dec. 13, 2004) (instructing the parties to file supplemental evidence without deciding the merits of the shipper's rate reasonableness claims).

No. 08-1167, at 4 (filed June 26, 2008) ("Board's Reply"). The Board's strained statutory interpretation is contrary to the plain and unambiguous text of the statute. The Board reasons that the phrase "formal investigative proceeding" used in Section 11701(c) should be read to include only Board-initiated investigations and not to include investigations initiated upon complaint. But that interpretation defies the plain language in the statute. Section 11701(c) on its face applies to formal investigations "begun under subsection (a)" of Section 11701. The only investigations that may be "begun under subsection (a)" are investigations begun by the filing of a complaint. To the extent the Board has any authority under the existing statute to begin investigations on its own initiative, those investigations would be "begun under" other sections of the statute. The investigation in this case was begun under Section 11701 by WFA/Basin's filing of a complaint, and the three-year limitation applied to that investigation. The Board met the statutory requirement by ruling in the *September 2007 Decision* on the lawfulness of the challenged rates as of that point in time

The Board also suggested in its Reply in Support of its Motion to Dismiss that application of the three-year rule in rate reasonableness cases "would produce seemingly unconstitutional results, as the government may not deprive a person of a property interest without due process of law." Board's Reply at 8. But WFA/Basin clearly were not deprived of due process in this case. WFA/Basin had a full opportunity to submit evidence purporting to demonstrate that the challenged rates were unreasonable, and they obtained a fully reasoned decision from the Board disposing of every claim they made in support of their rate reasonableness allegation. If the Board had terminated the proceeding with the *September 2007 Decision* – as it should have done – there would clearly be no basis for claiming any due process violation. WFA/Basin had a full opportunity to prove its case and it failed to do so. No

constitutional issue would arise from a dismissal of the proceedings at this time under the three year rule.

3. Apart from Legal Considerations, Fairness Requires that any Decision be Given Only Prospective Effect from the Date of the *September 2007 Decision.*

The Board has broad discretion in deciding whether to award reparations in rate reasonableness cases. The statute provides the Board with authority to establish maximum reasonable rates but leaves the Board with discretion to exercise that authority: "When the Board, after a full hearing, decides that a rate charged or collected by a rail carrier for transportation . . . does or will violate this part, the Board may prescribe the maximum rate, classification, rule, or practice to be followed." 49 U.S.C. § 10704. The agency and the courts have repeatedly acknowledged that the Board's authority to award reparations is permissive, not mandatory. *See Potomac Elec. Power Co. v. Penn Central Transportation Co.*, 359 I.C.C. 222, 241 (1977) ("The issue of reparations is addressed to our discretion and we may deny reparation *even though a rate is unreasonable when there is good and sufficient reason for doing so.* We do not deem it appropriate to award reparations in this proceeding . . . The rate prescription is only for the future."); *Genstar Chemical Ltd. v. ICC*, 665 F.2d 1304, 1309 n.3 (D C. Cir. 1981) ("[I]t would make little sense for Congress to vest in the Commission the power to fashion and provide complete relief in light of the statutory purposes, and yet allow the Commission absolutely no discretion when ordering a refund of overcharges, particularly where the award may substantially affect the future rates, performance, and health of the industry.").

For the reasons discussed above, the *September 2007 Decision* established the lawfulness of the challenged rates as of the date of that decision and therefore, as a matter of law, no reparations can be awarded for movements occurring before the date of the *September 2007*

Decision. But even if the principles of *Arizona Grocery* did not preclude reparations for periods before the date of the *September 2007 Decision*, the equities in this case would justify such a limitation on reparations.

WFA/Basin already had a full opportunity to submit SAC evidence showing that the challenged rates were unreasonable. In presenting that evidence, WFA/Basin pursued a litigation strategy in which their SAC results were heavily dependent on disproportionately favorable revenue allocations created by the MSP methodology. But as the Board noted, WFA/Basin either knew or should have known that the Board had concerns about the shortcomings of MSP and that the Board was open to replacing that methodology with a more accurate methodology. When the Board adopted the density-based ATC methodology, WFA/Basin's litigation gamble failed. The Board's established practice would have precluded WFA/Basin from immediately refiling SAC evidence after losing their first case. *BNSF Ry. Co. v. STB*, 403 F.3d 771, 778 (D.C. Cir. 2005) ("'[W]hen a matter has been once fully considered and decided it must be regarded as settled unless it appears from new facts presented that the Commission was wrong.'") (quoting *Traugott Schmidt & Sons v. Michigan Central R.R.*, 23 I.C.C. 684, 685 (1912)); *see also PPL Montana, LLC v. STB*, 437 F.3d 1240, 1247 (D.C. Cir. 2006).

Even if fairness considerations justified the Board's decision to make an exception to that practice in this case, fairness does not require that any reparations be awarded for the time period preceding the reopening of the record. In fact, awarding retroactive reparations to WFA/Basin for the period covered by its prior evidence would reward WFA/Basin for the risky litigation strategy it unsuccessfully pursued in its first SAC case. It would be perverse to award reparations on pre-September 2007 movements and eliminate all consequences of WFA/Basin's unsuccessful attempt to game the Board's existing SAC methodologies.

It would be especially inappropriate to award WFA/Basin reparations back to the filing of their initial SAC evidence in light of the fundamental changes WFA/Basin made on reopening to their SAC assumptions. As discussed above in Section I.B, WFA/Basin did not even try to file evidence consistent with the approach taken in their original case, but rather they abandoned the basic SAC assumptions made in their original evidence and replaced those assumptions with entirely new ones. Even if the Board had originally been inclined to treat this reopening as merely a continuation of WFA/Basin's original case, with retroactive effect, it would make no sense for the Board to treat WFA/Basin's fundamentally different SAC case on reopening as a mere continuation of their original SAC case. If the Board does not reject WFA/Basin's new evidence altogether on grounds that it exceeds the scope of this limited reopening, it should nevertheless treat the new evidence as the equivalent of a new SAC case with prospective effect only from the date of the *September 2007 Decision*. In effect, WFA/Basin have abandoned their original SAC assumptions, thus making it appropriate to treat the *September 2007 Decision* as a final resolution of their original SAC claims. Any reparations that would be appropriate under the new SAC evidence should apply only to traffic moving after the date of the *September 2007 Decision*.

Moreover, fairness to BNSF would justify limiting any reparations to the period after the date of the *September 2007 Decision*. Unsuccessful complainants in rate cases are not generally permitted to refile SAC evidence, as noted above. This longstanding practice reflects a policy that there should be a period of repose when a railroad prevails in a rate reasonableness case. As the Board noted in its notice of proposed rulemaking in Ex Parte No. 657 (Sub-No.1), it is appropriate for the Board to "protect railroads from the threat of repetitive litigation by unsuccessful litigants who can demonstrate no more than a desire to make a better case." Notice

of Proposed Rulemaking, *Major Issues in Rail Rate Cases*, slip op. at 37 (STB served Feb. 27, 2006) The D.C. Circuit has endorsed the Board's policies of repose and finality, upholding the Board's practice not to allow "'a disappointed party to revise its case in response to [the Board's] rulings, [because] there could be no end to an administrative proceeding.'" *PPL Montana*, 437 F.3d at 1247 (quoting *PPL Montana, LLC v. Burlington N & Santa Fe Ry. Co.*, STB Docket No 42054, (STB Served Mar. 21, 2003)).

Even if the Board does not consider the three-year rule binding on its investigations into the reasonableness of rates, it is clear that the three-year rule expresses a strong policy of protecting railroads from the burdens of protracted litigation and the uncertainties that exist while litigation is pending. Other statutory provisions express a similar policy. *See* 49 U S C. § 10101(15). Thus, while the Board allowed WFA/Basin the chance to reopen the record immediately after the *September 2007 Decision* and to file new SAC evidence, the Board should give effect to the policy of repose and limit any award of reparations to the period after the *September 2007 Decision*. The Board's finding in the *September 2007 Decision* that WFA/Basin had failed to demonstrate that the challenged rates exceed a reasonable maximum rate should lead the Board to limit any reparations for the time period covered by that decision even if the Board incorrectly concluded that *Arizona Grocery* does not prohibit reparations on the facts of this case.

J. IF THE BOARD PRESCRIBES A RATE, IT SHOULD LIMIT THE RATE PRESCRIPTION TO 10 YEARS.

In *Major Issues in Rail Rate Cases*, the Board concluded that rate prescriptions in cases involving the SAC methodology should be limited to 10 years. The primary reason for limiting rate prescriptions to 10 years was that "inevitable and substantial changes in circumstances" generally render obsolete the assumptions underlying the results of a SAC analysis long before

the 20-year DCF analysis period has ended. *Id.* at 62. In addition, the Board reasoned that shorter rate prescription periods are more consistent with the statutory policy to "foster the railroads' ability to establish reasonable rates and minimize Federal regulatory control." *Id.* at 65.

The Board also decided, however, that it would apply a 20-year DCF analysis period in this case, and if necessary, prescribe rates for the 20-year DCF period. The Board reasoned that it was appropriate to use a 20-year period in this case because the complainants had already designed their SARR to accommodate projected traffic growth over a 20-year period. In the *September 2007 Decision*, the Board therefore applied a 20-year DCF analysis, although it found that the challenged rates did not exceed reasonable maximum rates and therefore the Board did not prescribe rates for any period.

The rationale for using a 20-year analysis period no longer applies in this round of SAC evidence. The SARR posited by WFA/Basin in their original SAC evidence was a high-volume, high-density railroad where the amount of track and yard facilities required by the SARR was sensitive to the peak year volumes on the SARR. But WFA/Basin's new SARR has far less traffic than the prior SARR and most of the traffic growth on the new SARR occurs in the first 10 years of the SARR.[11] WFA/Basin's new SARR is a single-track railroad with minimal facilities. A slight reduction in the peak year traffic volume would not justify a change in the SARR's facility requirements and it would make no difference in the operations of SARR trains. Moreover, the concerns that led the Board to limit rate prescriptions to 10 years in Ex Parte No. 657 (Sub-No.1) have become even more acute in the last few years, particularly in rate reasonableness cases involving coal transportation. Environmental issues are creating substantial

[11] SARR traffic volumes increase by just over a million tons between 2014 and 2024 (less than 2%), increasing from 67.4 million tons to 68.5 million tons. *See* Section III.H.4.

uncertainty with respect to long-range coal forecasts, and some forecasts predict significant drops in coal shipments out of the PRB over the next decade and a half. *See* Section III.H.4.

K. CONCLUSION

The Board should reject WFA/Basin's supplemental evidence on grounds that it exceeds the limited scope of this reopening and terminate this proceeding. If the Board does evaluate WFA/Basin's evidence, the Board should make the changes described in this Reply Evidence and Argument and find that SAC revenues do not exceed SAC costs.

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July 14, 2008

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of July, 2008, I have served six copies of the foregoing Reply 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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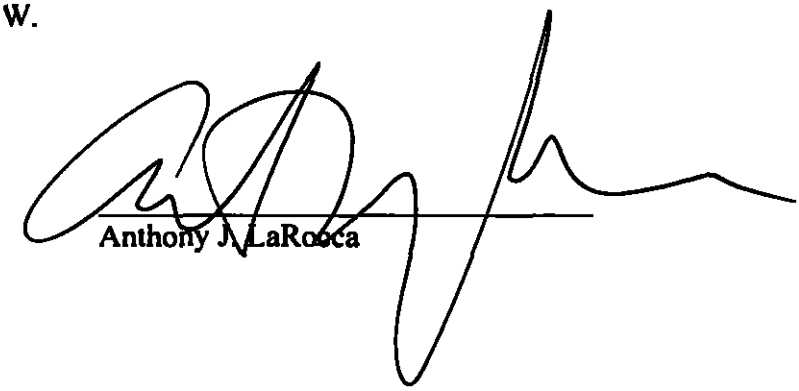

Anthony J. LaRocca

II. MARKET DOMINANCE

A. QUANTITATIVE EVIDENCE

WFA/Basin assert that the jurisdictional threshold should be recalculated based on URCS costs that have been recalculated to incorporate a CAPM-based cost of capital for 2004.[1] The Board should reject WFA/Basin's recalculation of the jurisdictional threshold for several reasons.

First, as WFA/Basin acknowledge, WFA/Basin and BNSF had previously agreed on the calculation of the jurisdictional threshold for 2004. WFA/Basin TSO Nar. at II-A-1. Since the parties had agreed on this issue, WFA/Basin are not free to change their mind at this point and attempt to calculate the jurisdictional threshold in another manner.

Second, any attempt to revise the methodology for calculating the jurisdictional threshold is outside the scope of this limited reopening. In *Western Fuels Ass'n, Inc & Basin Elec. Power Coop v. BNSF Railway Co.*, STB Docket No. 42088, slip op. at 2 (STB served Nov. 8, 2006) ("*November 2006 Decision*"), the Board specifically prescribed the methodology to be used to determine the jurisdictional threshold in this case, directing that variable costs were to be calculated "using the Phase III URCS appropriate for the historical issue movements already of record (e.g., if a historical movement is in 2002, the 2002 Phase III URCS program should be utilized; if the historical period includes 2003 movements, the 2003 Phase III URCS program should also be utilized, etc.)." Pursuant to this directive, jurisdictional threshold calculations for 2004 must be based on the 2004 Phase III URCS program, which uses the cost of capital determined by the Board in *Cost of Capital – 2004*, STB Ex Parte No. 558 (Sub -No. 8) (STB served June 30, 2005). Similarly, jurisdictional threshold calculations for 2005 must be based on

[1] Although WFA/Basin do not discuss the jurisdictional threshold for 2005, they presumably believe it should also be recalculated.

the 2005 Phase III URCS program, which uses the cost of capital determined by the Board in *Cost of Capital – 2005*, STB Ex Parte No. 558 (Sub.-No. 9) (STB served Sept. 20, 2006).

Third, recalculation of the jurisdictional threshold is outside the scope of this limited reopening. The additional evidence called for by the Board in this supplemental evidence on the cost of capital issue was limited to evidence relating to the proper "estimate [of] what it would cost a SARR to raise capital." *February 2008 Decision* at 6. The Board did not reopen the record to receive additional evidence on BNSF's cost of capital, the proper cost of capital to be used in URCS, or the proper approach to estimating cost of capital for purposes of assessing the Board's jurisdictional threshold. The only issue on reopening relating to the cost of capital was the proper cost of capital to be used in the DCF analysis

Fourth, the limited rationale for restating the jurisdictional threshold offered by WFA/Basin is neither compelling nor adequate. WFA/Basin offer only that recalculation is justified because "CAPM produces a more accurate estimate of rail industry equity costs than the single-stage DCF method." WFA/Basin TSO Nar. at II-A-2. BNSF addresses WFA/Basin's contentions concerning the propriety of retroactively applying CAPM in detail in Section I. With respect to the proposed recalculation of URCS costs, WFA/Basin do not even attempt to support their assertion that the use of CAPM to recalculate URCS costs would produce superior results. As to the years in question – 2004 and 2005 – the Board has never concluded that the DCF-based cost of capital calculations were flawed or unreliable. There is no evidence at all in the record here or in the record of any other Board proceeding that the cost of capital calculations for 2004 and 2005 were incorrect. The question of whether to change the methodology for calculating the industry cost of capital was not even raised during the 2004 proceeding With respect to 2005, the Board determined that "there was insufficient evidence in this proceeding to

justify a departure from long-established methodology used to calculate the cost-of-equity component."[2] The Board specifically declined to "hold this decision in abeyance or issue interim cost of capital decisions while we explore this issue in depth. As stated above, the record does not support a departure at this point from our precedent without further comment and study."[3]

Indeed, when the Board declined to change its 2005 cost of capital determination, one of the reasons it cited was the need to issue URCS costs to be used in other regulatory proceedings, such as the present case. The Board clearly decided that the interests of finality and certainty required the publication of URCS costs that would be used in pending cases and would not subsequently be changed:

> [T]his cost-of-capital calculation is an integral component of many other decisions the Board must make, including the revenue adequacy determination that we must make annually by statute It is also a component in our Uniform Railroad Costing System, which the Board provides to other parties for use in pending regulatory matters, as well as for other private uses.[4]

Fifth, recalculating the jurisdictional threshold based on a retroactive revision to the URCS models for 2004 and 2005 would be unlawful for the reasons discussed above in Section I.G.1.a The Board is bound by its prior, final determinations as to the railroad industry cost of capital and it cannot ignore those prior determinations on an ad hoc basis in the context of individual rate cases. Indeed, the legal prohibition on ad hoc departures from the Board's prior cost of capital determinations is particularly compelling in the context of the Board's assessment

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[2] *Cost of Capital – 2005*, STB Ex Parte No. 558 (Sub.-No.9), slip op. at 2 (STB served Feb 12, 2007).

[3] *Id* at 5

[4] *Id.* The Board successfully defended its decision to adhere to a DCF-based cost of capital for 2005 on appeal. *Western Coal Traffic League v. Surface Transportation Board*, 2008 U.S. App. LEXIS 2770 (D.C. Cir. 2008) (*per curiam*).

of the jurisdictional threshold. The statutory provision limiting the Board's jurisdiction to set maximum reasonable rates specifies that the variable costs used in calculating the 180% R/VC threshold "shall be determined only by using such carrier's unadjusted costs, calculated using the Uniform Rail Costing System cost finding methodology . . . ." 49 U.S.C. § 10707(d)(1)(B). The URCS cost inputs for a given year, including the cost of capital assumption, are those determined by the Board and provided to the public If the Board were to permit a calculation of the jurisdictional threshold in this proceeding using something other than the 2004 and 2005 URCS programs and inputs, it would be calculating the jurisdictional threshold in a manner contrary to the statute.

For all of these reasons, variable costs should be calculated using the version of URCS for the pertinent year as published by the Board. This was the methodology that the parties were previously instructed to follow and it would be improper to depart from this methodology in this reopening.

B QUALITATIVE MARKET DOMINANCE

There is no dispute between the parties concerning qualitative market dominance.

III. STAND-ALONE COST

A. TRAFFIC GROUP

1. Stand-Alone Railroad Traffic

The Board's *September 2007 Decision* offered WFA/Basin the opportunity "to modify its SAC presentation in light of the new revenue allocation methodology." *September 2007 Decision*, at 20. The Board expressed concern that WFA/Basin "included in its traffic group considerable traffic offering limited revenue contribution" that it might not have included had it realized that the Board would apply ATC to determine cross-over revenues. *Id.* The Board directed that WFA/Basin would be permitted to "increase or decrease the traffic group, change the configuration of the LRR, and submit evidence on all related issues . . [but] neither party will be allowed to use this reopening of the record to relitigate unrelated issues." *Id.* In subsequent decisions, the Board reiterated the narrow scope of the opportunity it had provided WFA/Basin for submitting supplemental evidence. *March 2008 Decision* at 2 ("We therefore offered WFA the opportunity to redesign the LRR *for the limited purpose of addressing the new revenue allocation procedure* and to submit supplemental evidence based on that redesign") (emphasis added), *February 2008 Decision* at 7 ("our intent [is] that the record be reopened and the SAC analysis revised only in so far as appropriate to reflect and respond to the change in revenue allocation procedure for cross-over traffic"); *id.* at 8 ("This is not an opportunity to submit a new case, but instead is an opportunity to allow WFA to modify its SAC presentation in light of the new revenue allocation methodology"). Clearly the Board recognized that it would

be inappropriate to permit WFA/Basin, having lost once, to start over with the sole objective of improving the outcome.[1]

BNSF argued in its petition for reconsideration, and still believes despite the Board's contrary determination, that the Board's desire to give WFA/Basin another chance to submit its case was material error. The original WFA/Basin traffic selection was specifically designed to take unfair advantage of the MSP revenue allocation. When the Board adopted ATC to prevent precisely the type of gaming in which WFA/Basin had engaged, WFA/Basin's gamble failed and the Board found that BNSF's rates were reasonable. Unfortunately, the Board's decision to give WFA/Basin an opportunity to supplement its evidence in the interest of "fairness" has been transformed by complainants into nothing more than a new opportunity for gaming. As the discussion below demonstrates, WFA/Basin have fully exploited the Board's offer. WFA/Basin have effectively submitted an entirely new case – flouting the Board's direction that evidence was supposed to be submitted for very limited purposes – by introducing (1) a radically different traffic group designed not to respond to the impact of the Board's adoption of ATC but instead to

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[1] The Board recognized the need to protect railroads from repetitive litigation by shippers whose rates had been found reasonable in the notice instituting the Ex Parte No 657 (Sub-No.1) rulemaking. The Board stated that because its rule would place

> limits on a shipper's ability to file a new complaint, this proposal would protect railroads from the threat of repetitive litigation by unsuccessful litigants who can demonstrate no more than a desire to make a better case. The need for some repose in rate investigations reflects "the sound and obvious principle of judicial policy that a losing litigant deserves no rematch after a defeat fairly suffered. . . ." Astoria Fed. Sav. & Loan Ass'n v. Solimino, 501 U.S. 104, 107 (1991). Otherwise, the resources of this agency would be drained with rate disputes resisting resolution Id. at 107-08.

Major Issues in Rail Rate Cases, STB Ex Parte No. 657 (Sub-No.1), slip op. at 37 (STB served Feb. 27, 2006).

manipulate the rate prescription that emerges from application of MMM, the Board's newly adopted rate prescription methodology; and (2) a stand-alone railroad configuration that extends well beyond the issue traffic route that characterized their earlier submissions in this proceeding.[2]

a. WFA/Basin's Modified Traffic Group

In the prior iterations of this case, WFA/Basin included in the LRR's traffic group nearly all of the coal that BNSF originates in the PRB The LRR considered by the Board in its *September 2007 Decision* would have transported coal to 76 power plants for 37 shippers,[3] handling more than 219 million tons of coal in its last full year of operations, 2023.[4] The LRR assumed that the traffic in the traffic group would use the same facilities that the traffic uses in the real world. WFA/Basin explicitly elected not to include rerouted traffic in their prior submissions, stating that they wished to avoid the complex issues that had been raised by reroutes in other recent cases.[5]

The new LRR serves only 21 shippers with deliveries to only 24 power plants.[6] It will transport only 68 3 million tons in 2023,[7] less than a third as much as the prior version of the SARR Most notably, whereas the prior SARR had no rerouted traffic, 29% of the traffic on the

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[2] In contrast to the prior SARR, the new SARR is highly dependent upon transportation services provided on those portions of the SARR not used by the issue traffic. For example 37% of the ton miles traveled on the reconfigured SARR are generated over the Wendover to Northport segment that is not used by the issue traffic. *See* BNSF TSR workpaper "northport tonmiles.xls."

[3] WFA/Basin TSO Nar. at I-6.

[4] *September 2007 Decision* at 30.

[5] *See* WFA/Basin Opening Nar. at I-13.

[6] WFA/Basin TSO Nar. at III-A-1

[7] WFA/Basin TSO Nar. at III-A-2.

new SARR is highly-rated rerouted traffic that, in the real world, shares minimal facilities with only a portion of the issue traffic. Moreover, this rerouted traffic accounts for a disproportionate 37% of the SARR's revenues.[8]

WFA/Basin do not attempt to explain how their radically altered traffic group responds to the Board's adoption of ATC, other than to note that they "revised the LRR's configuration to maximize the LRR's revenues and minimize its costs under the Board's new ATC method . . . "[9] The Board's justification for allowing WFA/Basin an opportunity to modify their traffic group and submit new evidence was that "[u]sing ATC rather than MSP changes the incentives for a shipper in the selection of the traffic group to be used." As its citation to *PPL Montana, LLC v. The Burlington Northern and Santa Fe Railway Co.*, 6 S.T.B. 752 (2003), indicates, the Board sought to provide WFA/Basin an opportunity to modify its traffic group to respond to changed incentives introduced by ATC, not to submit a new case based on a *de novo* determination of the traffic group.[10] In particular, the Board noted that the original traffic included "considerable traffic offering limited revenue contribution . . But under ATC, WFA might not have included all that traffic or might have changed the configuration of the LRR." *September 2007 Decision*

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[8] *See* Exhibit III.A-1. For purposes of this filing, two of the movements identified by WFA/Basin (TSO Nar. at III-C-27) should not be regarded as reroutes. These are the {

} In each case, the vast majority of the coal for those origin/destination pairs uses the routing specified by WFA/Basin in its TSO.

[9] WFA/Basin TSO Nar. at I-6

[10] *See February 2008 Decision* at 3 n.3. In *PPL Montana*, the Board denied PPL the opportunity to add back to a segment of the SARR traffic that PPL had previously agreed should be dropped. PPL contended that it would not have dropped the traffic had it known that the Board would adopt a new internal cross-subsidy test. The Board responded that the cross-subsidy test did not change PPL's incentives with respect to the traffic it had dropped: "PPL had every incentive from the outset of the case to maximize revenues for the WMCRR as a whole, and one way to do this would be to keep joint-line traffic on the WMCRR system for the greatest percentage of the haul possible." 6 S.T.B. at 760.

at 20. Clearly the Board anticipated that WFA/Basin might wish to drop some unprofitable traffic because ATC had changed the incentive to carry that traffic.

WFA/Basin, however, went well beyond dropping non-compensatory traffic. WFA/Basin extended the network to Northport from Wendover, adding 92 new route miles to the SARR, an increase of 42% in total route miles.[11] WFA/Basin rerouted approximately 19 million tons for 5 shippers to make use of the much longer network configuration. The rerouted traffic moves at R/VC ratios well above those exhibited by much of the traffic that actually shares the facilities that comprise the issue traffic route in the real world.[12] At the same time that it added highly-rated rerouted traffic, WFA/Basin dropped an equivalent volume of traffic that moves over the SARR route in the real world even though that excluded traffic would have offered the SARR positive contribution, as explained in Section III.A.3 d below.[13] Building out to Northport and rerouting the traffic was not a response to new incentives created by the adoption of ATC.

As Table III.A-1 below demonstrates, WFA/Basin had the opportunity and incentive to reroute traffic under MSP, but they chose not to do so. The Board's adoption of ATC did not create a new incentive to reroute traffic. Under either MSP or ATC, WFA/Basin would have substantially increased the revenues that the SARR would earn on the traffic it has now decided

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[11] *See* WFA/Basin TSO workpaper "TRACK_MILES_WORKSHEET_WFA_3rd_Supp xls," worksheet "Route Miles 3rd Supp" (showing SARR added 92 route miles); *September 2007 Decision* at 25 (prior SARR had 218 route miles).

[12] In its opening filing, WFA/Basin touted its choice not to include rerouted traffic: "By having no re-routes, WFA/Basin moot an issue that has complicated many recent SAC cases." WFA/Basin Op. Nar. at I-13 WFA/Basin's choice to reverse course and introduce the complication of rerouted traffic at this late stage in what was supposed to be a limited submission of new evidence strongly suggests ulterior motives

[13] *See* Exhibit III.A-2.

to reroute by handling that traffic over the issue traffic facilities rather than on the real world route of movement. Indeed, the SARR would have earned *more* revenues on the rerouted traffic under MSP than it now is assumed to earn under ATC, as shown in Table III.A-1 below. The Board's adoption of ATC made building out and rerouting this traffic *less* attractive than had been the case under MSP by providing the SARR with *less* revenues, not more:

Table III.A-1
2005 SARR Revenues for WFA Re-Routed Cross-Over Traffic[14]

	Total $ in Millions	Difference from MSP
MSP	$40.6	---
ATC (Modified Formula)	$37.7	($2.8)
ATC (Original Approach)	$36.7	($3.8)

As the Table shows, the SARR receives a lower revenue division for these moves under ATC than it would have had MSP been applied. In other words, WFA/Basin had a stronger incentive to include the rerouted traffic and build out to Northport in their original case when MSP might potentially have applied than they do now that ATC has been adopted. In the words of *PPL Montana*, WFA/Basin "had every incentive from the outset of the case" to make the rerouting and buildout choice they are making now. As they failed to make the choice at the appropriate time – when they submitted their opening evidence – they cannot be allowed belatedly to make that choice now.

Rerouting the Jeffrey traffic is obviously not a response to new incentives created by the adoption of ATC. The SARR now takes the Jeffrey traffic all the way to the interchange point with Union Pacific at Northport, so the movement is not a cross-over move that is subject to

[14] *See* BNSF TSR workpaper "reroutes MSP.xls." LRR densities were used for purposes of this calculation.

ATC WFA/Basin could have obtained BNSF's full revenues on Jeffrey in their original SAC case by rerouting the movement or by building out to include the facilities used by Jeffrey in the real world, but they chose not to handle Jeffrey as a local movement on the SARR. The same opportunity and incentives to take the full BNSF share of revenue for the Jeffrey movement existed at the time WFA/Basin filed their opening evidence in 2005. Moreover, the Board's adoption of ATC did not make the Jeffrey movement unprofitable as cross-over traffic.[15] Under ATC, Jeffrey produces almost the same relatively high R/VC as a cross-over movement as it does on the end-to-end BNSF segment from the PRB to the Northport interchange. Since Jeffrey would still be highly profitable under ATC as a cross-over movement, the rerouting of Jeffrey to obtain BNSF's full share of revenue on that movement is merely an attempt by WFA/Basin to improve their SAC results using assumptions they could have used in their original SAC evidence. The Board should not allow such a misuse of this limited reopening.

WFA/Basin make no attempt to justify their decision to reroute high rated traffic that moves for much of its journey over facilities that it does not share with the issue traffic in the real world. Moreover, as discussed below, WFA/Basin use that rerouted traffic to replace other profitable traffic that does share facilities with the issue traffic. Complainants do not explain how this manipulation of the traffic group assists in identifying cross-subsidies or inefficiencies which the SAC test is supposed to identify. Complainants do not contend, for example, that excluding profitable traffic and substituting highly rated rerouted traffic is intended to address inefficiencies in BNSF's coal network configuration and PRB operations. In *Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Railway Co.*, 6 S.T.B. 573, 591 (2003), the Board held that whether rerouting is permissible depends on:

[15] *See* BNSF TSR workpaper "Jeffrey RVC.xls."

> (1) a factual assessment of whether the transportation needs of the shipper would be met by the SARR and (2) a more fundamental consideration of whether the underlying purpose and objectives of the SAC test would be met.

WFA/Basin do not even address the second factor, and there is no indication that the reroutes are intended to further legitimate SAC objectives. In Ex Parte No. 646, the Board recognized that the legitimate SAC objective served by permitting complainants to group traffic and posit SARR configurations that differ from the real world railroad was to "to detect and eliminate the costs of inefficiencies in a carrier's investments or operations." *Simplified Standards for Rail Rate Cases* at 13.

WFA/Basin say not one word about how the changes to its traffic group or the SARR's configuration would address alleged inefficiencies in BNSF's network or operations. They have, therefore, failed to satisfy the burden of proof on the second prong of the reroute test set out in *TMPA*. In fact, BNSF operations in the PRB are already highly efficient, so it is difficult to see how WFA/Basin's traffic substitution and rerouting could be intended to rectify some sort of built-in inefficiency. WFA/Basin have not sought to increase densities or make other changes of the type that would be expected to increase the efficiency of a SARR and allow it to take advantage of economies of scope and density. Instead, WFA/Basin have simply substituted one group of high rated traffic that does not use the posited facilities in the real world for another, lower rated group of traffic that does use those facilities. The rerouting cannot be explained as an attempt to further legitimate SAC objectives; it is purely a revenue grab.

The difference between the profitable but excluded real-world traffic and the rerouted traffic that WFA/Basin used in its place is that the rerouted traffic moves at significantly higher R/VCs than the excluded traffic. As described below, substituting rerouted traffic with a higher R/VC into a traffic group in place of lower R/VC traffic that actually uses the issue traffic route

has a significant impact on the application of MMM, which would apply if the Board concluded that a rate reduction is in order. It is the impact on MMM, and not any change in circumstances created by ATC, that led to the reconfiguration of the SARR and the changes in the composition of WFA/Basin's proposed traffic group.

b. Gaming of MMM Through Traffic Selection

In Ex Parte No. 657 (Sub-No.1), the Board focused on a defendant railroad's supposed incentive to "game" the setting of issue traffic rates under the previously used percent reduction method for setting rates when SARR revenues exceeded SAC. But the Board also expressed concern that the percent reduction method for setting maximum reasonable rates was subject to gaming *by shippers* through their selection of a traffic group. The Board indicated that a shipper could inappropriately game the SAC outcome by loading the traffic group with highly-rated traffic. This could create the appearance that a reasonable rate was unreasonable, result in inappropriately large rate reductions, and "could encourage a shipper to challenge a reasonable rate by grouping its traffic with other traffic charged high rates." *Major Issues in Rail Rate Cases* at 11.

WFA/Basin's TSO evidence demonstrates that a similar type of shipper gaming of the SAC test that concerned the Board with respect to percentage reduction is possible under MMM. WFA/Basin sought to game MMM by grouping the Laramie River traffic with traffic that exhibits relatively high R/VCs. Indeed, WFA/Basin's new SAC evidence is a more egregious form of the gaming cited by the Board, because it is accomplished by dropping traffic with lower R/VCs that moves over the SARR route in the real world and substituting rerouted traffic (that makes only minimal use of the issue traffic route in the real world) that exhibits much higher R/VCs. By creating a traffic grouping with an artificial concentration of high R/VC traffic and

eliminating profitable but lower R/VC traffic. WFA/Basin are able to increase the rate reduction resulting from application of MMM. This is precisely the type of gaming that the Board identified as a concern under the prior rate reduction methodology.

The following tables demonstrate how WFA/Basin's gaming technique works. In Table III.A-2, the MMM results for a SARR with three shippers are shown.

Table III.A-2
Sample MMM Rate Reduction

	Shipper A	Shipper B	Issue Traffic	Totals
Rate/Ton	$10.00	$8 00	$13.00	
VC/Ton	$3.00	$3.00	$3.00	
R/VC	3.33	2.67	4 33	
Tons (M)	2	2	2	
Revenue (M)	$20	$16	$26	**$62**
SAC Requirement (M)				**$57**
Starting MMM R/VC Cap				**3.17**
MMM R/VC Cap After Iteration	3 33	2 67	3.50	**3.50**
Maximum Rate	$10.00	$8.00	$10.50	
Revised Revenues (M)	$20	$16	$21	**$57**
Rate Reduction %	0%	0%	19%	

In this example, the SARR generates $5 million in excess revenues. The average R/VC required for the SARR to precisely earn its SAC is 3.17, but Shipper B has an R/VC lower than this average and Shipper B's rate cannot be increased to produce a higher R/VC. The revenue shortfall for shippers with below average R/VCs must be made up for by shippers with above average R/VCs. In this case, the break even point for the SARR that produces the SAC Requirement is an R/VC of 3 50. As the issue traffic is the only shipper with a starting R/VC above that level, it is the only shipper to receive a rate reduction.[16]

[16] The average R/VC required by the SARR is determined by dividing SAC ($57 million) by the total variable costs (6 million tons at $3.00 per ton equals $18 million). The iteration used to calculate the final cap for rates on the SARR stops at the point where the SAC just breaks

In Table III.A-3, Shipper C has been substituted for Shipper B. Shipper C has the same variable costs and tonnage as Shipper B, but pays a rate that produces a higher R/VC. This higher R/VC is still below the average for the SARR.

Table III.A-3
Sample MMM Rate Reduction with Substituted Traffic

	Shipper A	Shipper C	Issue Traffic	Totals
Rate/Ton	$10.00	$9 00	$13 00	
VC/Ton	$3 00	$3 00	$3.00	
R/VC	3.33	3.00	4.33	
Tons (M)	2	2	2	
Revenue (M)	$20	$18	$26	**$64**
SAC Requirement (M)				**$57**
Starting MMM R/VC Cap				**3.17**
MMM R/VC Cap After Iteration	3 25	3.00	3.25	**3.25**
Maximum Rate	$9 75	$9.00	$9.75	
Revised Revenues (M)	$19 5	$18	$19.5	**$57.00**
Rate Reduction %	3%	0%	25%	

As the table demonstrates, substituting the higher-rated Shipper C for Shipper B produces a rate reduction for Shipper A where none was required before, and increases the rate reduction for the issue traffic. Ironically, under MMM the traffic that actually creates this result – the Shipper C traffic – receives no benefit from the SARR's increased revenues because it receives no rate reduction at all. Substituting Shipper C with its higher R/VC reduces the revenue shortfall from shippers with below average R/VCs that must be made up by higher rated traffic and therefore permits a greater rate reduction for that higher rated traffic.[17] The increased rate reduction for

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even. Here, the maximum contribution from Shippers A and B is $36 million, so the issue traffic must contribute $21 million. This equates to an R/VC of 3.50 ($21 million in revenue divided by $6 million in variable costs).

[17] Shipper C provides $2 million more in revenues in this example than Shipper B provided in the original example. As a result, there is less revenue shortfall to be made up by the remaining shippers. In Table III.A-2, Shipper A and the issue traffic needed to generate a total

the issue traffic, and the new rate reduction for Shipper A, are not the result of any fundamental change in the SARR. It carries the same amount of traffic, and has the same SAC Requirement, total variable costs, and average R/VC. The only difference is that a shipper with a higher R/VC was substituted for Shipper B in the first table. Under MMM, a rate reduction can be manufactured by a complainant by manipulating the distribution of R/VCs through choice of traffic group – the very sort of tactics that the Board characterized as "gaming" in the Ex Parte No. 657 (Sub-No.1) decision

These examples demonstrate that MMM presents a mismatch between the incentives of a hypothetical railroad in a contestable market and those of a complaining shipper seeking to maximize the rate reduction for the issue tariff. A hypothetical railroad with a given capacity is indifferent to the distribution of R/VC ratios within its traffic group (assuming that all traffic is compensatory). The hypothetical railroad will be able to earn precisely its stand-alone costs and no more, thus it does not matter to the railroad whether the revenue comes mostly from a few shippers with high R/VCs or is more evenly distributed across the traffic group. By contrast, a complainant seeking a rate reduction cares very much what the distribution of R/VC ratios is. Indeed, a complainant like WFA/Basin, with traffic at the top of the R/VC scale for the SARR, will be particularly concerned because the rate reduction the issue traffic will receive under such circumstances is highly influenced by the array of R/VC ratios in the traffic group. Complainant's incentives under MMM can lead, as they did in this case, to a contrived traffic selection designed to maximize the rate reduction for the issue traffic.

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of $41 million in revenue for the SARR to break even. When Shipper C is substituted in Table III A-3, Shipper A and the issue traffic need only generate a total of $39 million in revenue for the SARR to break even. The reduced revenue requirement from these shippers translates to a greater rate reduction. SAC is exactly equal to SARR revenues when the R/VCs for Shipper A and the issue traffic are capped at 3.25.

The opportunity to game MMM through the rerouting of traffic is particularly great. If Shipper B is a shipper that actually shares facilities with the issue traffic in the real world and Shipper C is a movement that has been rerouted onto the issue traffic facilities, then the rate reduction generated in Table III-A 3 is purely the result of the artifice of rerouting. A rational SARR would have had no reason to drop Shipper B in favor of Shipper C. The only reason to engage in this strategic rerouting of traffic is to game the rate reduction methodology.

In this case, WFA/Basin also had no valid reason to drop 19 million tons of traffic that actually uses the issue traffic facilities and replace that traffic with 19 million tons of rerouted traffic. The excluded traffic clearly would have been profitable to the SARR and a rational SARR would have included it in the traffic group. As discussed in more detail below in Section III.A.3.d, BNSF demonstrates that while the excluded traffic generates lower R/VC ratios than the rerouted traffic, it nevertheless generates substantial positive contribution for the SARR. BNSF determined the amount of contribution that would have been provided by the excluded traffic by modeling the SARR both with and without that traffic. When the excluded traffic is added back to the SARR, the revenues it generates exceed incremental costs by more than $180 million, or 30%. *See* Exhibit III.A-3. A rational SARR would clearly have included that traffic in the SARR traffic group.

WFA/Basin's new SAC traffic group and configuration are not designed to respond to the adoption of ATC but, instead, to manipulate the application of MMM in exactly the manner described in the examples. WFA/Basin dropped approximately 19 million tons of lower rated traffic and replaced it with an equivalent volume of higher-rated rerouted traffic. This created an artificial distribution of R/VC ratios on the SARR traffic group concentrated on high rated

traffic. The result is an application of MMM that vastly and improperly increases the amount of rate relief that WFA/Basin claim to be entitled to.

WFA/Basin should not be permitted to obtain rate relief by gaming MMM. Their submission of new evidence was supposed to be limited to issues created by adoption of ATC, but they have opportunistically sought to use the Board's offer to reconfigure their traffic group to manipulate the results of MMM. As the Board said when it decided to adopt MMM to eliminate the potential for gaming the percent reduction methodology, "the maximum reasonable rate that can be charged to a complaining captive shipper should be determined by the Board based upon the evidence and applicable precedent, not by parties' litigation tactics." *Major Issues in Rail Rate Cases* at 11. As described in Section III.A.3.d below, BNSF believes that an appropriate method for addressing WFA/Basin's gaming in this proceeding, absent outright dismissal, is to adjust the revenues for the rerouted traffic to counteract the effort to manipulate the R/VC ratio distribution within the traffic group.

2 LRR Volumes

BNSF does not dispute the volumes WFA/Basin calculate for their specified traffic group. As WFA/Basin indicate, the Board's *September 2007 Decision* and its workpapers contain volumes for each of the shippers in WFA/Basin's current traffic group.

3. LRR Revenues

a. Single-Line Revenues

The only local move on the LRR is the issue traffic. BNSF accepts WFA/Basin's calculations of revenue for the issue traffic. BNSF notes that WFA/Basin calculated the issue traffic revenue based on the Board's workpapers, and that the Board in turn accepted BNSF's calculation of the issue traffic revenues. *September 2007 Decision* at 31. This fact is significant

because those calculations use mine-specific rates, *i.e.*, distinct rates for the six mines (Antelope, Caballo, Caballo Rojo, Cordero, Dry Fork, and Eagle Butte) from which Laramie River is assumed to source coal in the SARR world.[18] WFA Basin's request that the Board prescribe a single rate applicable to all mine origins[19] and its calculation of reparations based on a single rate applicable to all mine origins[20] are inconsistent with the Board's decision to calculate issue traffic revenue based on mine-specific rates. WFA/Basin's attempt to game the rate prescription and reparations through use of a single rate is addressed in detail in section III H below.

b. Division Of Revenues – Existing Interchanges

The SARR that WFA/Basin originally submitted to the Board did not include any existing interchange movements. In their TSO, WFA/Basin have rerouted the Jeffrey Energy Center traffic from its real-world PRB-Alliance-Northport routing to move south from the PRB over the SARR through Guernsey and on to interchange with UP at Northport WFA/Basin assert that this rerouting is permitted under the Board's rules and that for such interchange movements the SARR is entitled to BNSF's real-world division as its revenue.

As noted above, however, WFA/Basin's rerouting of the Jeffrey movement is in furtherance of their attempt to game the rate prescription generated under MMM. The Jeffrey movement is not cross-over traffic and therefore the Jeffrey reroute is not a valid response to the Board's adoption of ATC and is not within the scope of the reopening that the Board permitted. If WFA/Basin had wanted the SARR to earn BNSF's full revenues on the Jeffrey movement,

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[18] *See* WFA/Basin TSO workpaper "STB LRR Traffic and Revenues BNSF 3-26-07 Reply_1.xls," worksheet "MOBA_Rates."

[19] *See* WFA/Basin TSO Nar. at III-H-3.

[20] *See* WFA/Basin TSO Nar. at III-H-4 to III-H-5.

they could have had the SARR handle Jeffrey as a local movement in their original SAC presentation. The incentive to earn the full amount of BNSF's revenues existed when WFA/Basin filed their original SAC case. But WFA/Basin chose not to handle Jeffrey as a cross-over movement and they should be held to that decision in this limited reopening. Moreover, WFA/Basin have made no attempt at all to demonstrate that the rerouting of Jeffrey serves any objective that the SAC test is designed to advance. Rerouting Jeffrey in the new SAC presentation does nothing to help the Board determine whether the challenged rates are being used to cross-subsidize other traffic or whether the challenged rates are inflated due to inefficiencies in BNSF's existing network. Rerouting Jeffrey is designed solely to increase the amount of the rate reduction that WFA/Basin seek.

To correct for the impact of WFA/Basin's gaming, an adjustment to the SARR revenues for Jeffrey and the other rerouted traffic is called for. This revenue adjustment is described in III.A.3.d below.

c. Division Of Revenues – Cross-Over Traffic

BNSF does not agree with WFA/Basin's calculation of cross-over revenues. First, WFA/Basin inflated the revenues attributable to the SARR by making unexplained modifications to the variable costs used in the ATC calculation. Second, BNSF believes that two adjustments need to be made to the method by which ATC calculations are made: (1) revenue divisions should be calculated based on the *incumbent's* density on the replicated segments; and (2) the Board should return to its initial ATC approach because the Board's reopening of the record gave WFA/Basin the opportunity to address the concerns that led the Board to adopt a modified version of ATC and there is, therefore, no valid reason to apply modified ATC in this case. Finally, as with the Jeffrey traffic, WFA/Basin included rerouted cross-over traffic to manipulate

the results of the rate prescription that emerges from application of MMM. As a result, the revenues attributable to the rerouted cross-over traffic need to be modified as discussed in Section III.A.3.d below

(1) ATC revenue divisions should be calculated using unmodified URCS for the base year.

WFA/Basin provide no detail in their narrative concerning their application of ATC to calculate the SARR's revenue from cross-over traffic Their entire statement on the subject is that they "developed divisions for each cross-over traffic movement using the Board's ATC methodology as applied in the manner set forth in the September 2007 Decision and the Board's accompanying electronic workpapers."[21] In fact, WFA/Basin made modifications to the ATC calculations that are not documented, explained, or justified in their narrative.

A comparison of the revenues reported in Table III-A-2 on page III-A-4 of WFA/Basin's TSO with the revenues reported in Table III-H-1 on page III-H-2 reveals that WFA/Basin actually relied upon SARR revenues that are approximately $19 million higher over 20 years than those presented in its traffic discussion. The apparent source of the discrepancy is that while the revenues reported in Table III-A-2 were calculated per the Board's directive using unadjusted URCS fixed and variable costs for the base year,[22] WFA/Basin made a different URCS calculation for the revenue divisions on which it actually relied. WFA/Basin appear to have recalculated URCS for the base year using a CAPM-based cost of equity.[23] The overstatement of revenue from cross-over divisions not only inflates the apparent overcharge by

[21] WFA/Basin TSO Nar. at III-A-3.

[22] *See November 2006 Decision* at 3. This decision also applied to *AEP Texas North Co. v. BNSF Railway Co.*, STB Docket No. 41191 (Sub-No. 1).

[23] *See* WFA/Basin TSO workpaper "Assumptions Behind Each WFA DCF Model.doc."

the SARR but also influences the R/VC calculations for individual shippers that are used in the application of MMM. In this case, pushing the R/VC ratios of cross-over traffic higher by inflating revenues increases the rate reduction received by the issue traffic.[24]

WFA/Basin do not even mention this change in their narrative, and they make no effort to justify their surreptitious recalculation of URCS for use in computing ATC divisions. WFA/Basin are not allowed to make unexplained modifications on opening and wait to provide the justification on rebuttal when BNSF has no opportunity to make counterarguments. As the Board explained when WFA/Basin attempted a similar sleight of hand earlier in this proceeding:

> We did not address the merits of its new approach because WFA's assumption concerning debt amortization, which represented a departure from prior Board precedent, was "buried" in a workpaper on opening (without any supporting evidence or explanation to justify a departure) and the justification and the evidence in support of its assumption concerning debt amortization was not presented until rebuttal. . . . Our general rule is not to consider evidence not presented at the correct time. We will adhere to this policy, as it is not fair to allow a party to wait to present its evidence until the opposing party no longer has an opportunity to respond.

February 2008 Decision at 7 (note omitted).

Moreover, WFA/Basin should not be permitted to relitigate the settled issue of how URCS should be calculated for the base year in what is supposed to be a limited reopening. As discussed in Section II.A above, any attempt to recalculate URCS using a revised methodology is outside the scope of this proceeding and would, in any case, be inappropriate The URCS cost inputs for a given year are determined annually by the Board and are put to a variety of uses

[24] Tables III.A-2 and III A-3 demonstrate how raising the R/VC of shippers with R/VCs below the average required for the SARR to earn its SAC can produce greater rate reductions for shippers with above-average R/VCs.

thereafter. A retroactive modification to URCS in this proceeding would call into question other determinations made by the Board in unrelated cases.

The Board should require that ATC divisions are to be calculated using base-year unadjusted URCS costs calculated with the cost inputs previously published by the Board.

(2) ATC should be applied using the incumbent's densities.

In WFA/Basin's original SAC case, the question whether to use the SARR's densities or the incumbent's densities when applying ATC to calculate revenue divisions was not a significant issue. The LRR transported almost all of BNSF's traffic over the segments that it replicated and there was no rerouted traffic, so the densities did not differ materially. Now, WFA/Basin have taken less than all the traffic that moves over the replicated lines and have introduced reroutes as well. As a result, BNSF's real world densities on the lines replicated by the SARR are quite different from the SARR's densities over those same lines. Based on the Board's description of the purpose of ATC in earlier decisions in this case, BNSF believes that it is more appropriate to use the densities of the incumbent railroad for calculating ATC divisions.

One of the issues resolved by the Board in the *September 2007 Decision* was whether the ATC divisions should be based on variable costs "that included fictional interchanges costs between the SARR and the residual railroad." *September 2007 Decision* at 12. BNSF argued that inclusion of those costs was inappropriate because they were not costs actually incurred by BNSF, and ATC was about dividing the *incumbent's* relative costs between geographic line segments.[25] The Board agreed.

[25] BNSF Reply Second Supplemental Evidence, at 4-5 (filed Mar. 26, 2007).

The Board stated that the "purpose of the ATC revenue allocation is to determine how much of the revenue that the defendant carrier collects for the total movement should be allocated to each segment of the movement based on the costs that need to be recovered on each segment and the amount of other traffic on each segment available to share the joint and common costs." *September 2007 Decision* at 12 Specifically, the Board quoted its decision in Ex Parte No. 657 (Sub-No.1) that ATC is supposed to reflect "the carrier's relative average costs of providing service over the two segments" and that ATC "is keyed to the defendant carrier's relative costs of providing service." *Id.* BNSF's costs are determined, in part, by the density of the lines over which its traffic moves. Reflecting the impact of density on costs was a primary motivation for the adoption of ATC. It would be inconsistent with the stated objective of ATC – the allocation of revenues based on the *incumbent's* costs – and the need to reflect the impact of densities to use the densities of the SARR rather than the densities of BNSF.[26]

Allowing a complainant to affect the revenue allocation by manipulating on-SARR densities would be a departure from the stated purpose of ATC and could reintroduce bias into the revenue allocation. If ATC is then applied in a manner that reflects lower-than-actual

[26] In a decision served November 8, 2006, that applied both to the instant case and to the *AEP Texas* case, the Board specified that where there was rerouted traffic on the SARR, densities should include that traffic but should not include traffic not taken by the SARR that moved over the SARR route in the real world. *November 2006 Decision* at 3 The Board invited the parties to "advocate alternative assumptions and submit alternative ATC calculations" if they disagreed with the Board's specifications. *Id.* at 4. As noted, the original WFA/Basin SARR did not involve rerouted traffic or significant variations in density and volume from the real-world BNSF. The Board's instructions did not, therefore, create an issue in the application of ATC in the WFA/Basin case at that time. WFA/Basin's modification to its traffic, however, does implicate the issue. BNSF believes that the Board's subsequent clarification in the *September 2007 Decision* of the purpose and application of ATC with respect to excluding fictitious interchange costs is correct and inconsistent with the methodology proposed in the *November 2006 Decision.*

densities on the SARR while the residual incumbent is assumed to continue to carry all of the actual traffic, the revenue allocation is shifted improperly in the SARR's favor.

(3) ATC should be applied as originally proposed by the Board rather than as modified in the *September 2007 Decision.*

In the *September 2007 Decision*, the Board modified ATC to apply the allocation procedure to contribution instead of to total revenue. The Board did so because it observed that WFA/Basin's traffic group "includes considerable traffic with total revenue either below or barely above variable cost." *September 2007 Decision* at 14. The Board was concerned that the ATC allocation as originally proposed would allocate to the SARR revenues that were less than 100% of BNSF's variable costs on that segment. *Id.* The Board rejected BNSF's argument on reconsideration that the modification to ATC was improper *February 2008 Decision* at 4-5.

BNSF continues to believe that the Board's adoption of a modified version of ATC was wrong for the reasons set out in BNSF's Petition for Reconsideration. The Board's rejection of BNSF's challenge to modified ATC was based on considerations of "fairness." The Board did not even address BNSF's arguments that modified ATC undermines the fundamental objectives of ATC by ignoring relative on-SARR and off-SARR costs and that the Board's fairness concern is based on the misplaced assumption that the incumbent's costs are the same as or similar to the SARR's costs. In any event, since the Board gave WFA/Basin the opportunity to file supplemental SAC evidence, the Board has already dealt with the "fairness" concern that led it to adopt a modified version of ATC, so there is no longer any valid reason to continue applying modified ATC in this case.

BNSF therefore urges the Board to apply the original version of ATC to the new traffic group that WFA/Basin has presented in the most recent round of evidence. Permitting

WFA/Basin to submit new evidence based on a new traffic group and at the same time continuing to apply the modified version of ATC amounts to correcting the same perceived problem twice and results in a substantial revenue shift in the SARR's favor. The Board was concerned that WFA/Basin had included traffic that might be non-compensatory under ATC, but the Board gave WFA/Basin the opportunity to remove that traffic. WFA/Basin took advantage of the opportunity. WFA/Basin's refiling of SAC evidence with a new traffic group eliminated the potential problem perceived by the Board by giving WFA/Basin the ability to exclude any traffic that did not generate revenues that were adequate to cover the costs of the traffic.

BNSF demonstrated in its Petition for Reconsideration that applying the modified ATC approach significantly biases the revenue allocation in favor of the SARR because it no longer allocates revenues in proportion to total costs, both fixed and variable.[27] In denying BNSF's petition, the Board did not deny this bias, but concluded that as applied to a traffic group that contains marginal traffic – as did the traffic group before it at the time – it was unwilling to apply a methodology that risked allocating revenues below the costs incurred by the SARR in handling a move. With that risk removed by the reformulated traffic group, there is no basis for continuing to apply a modified ATC methodology that clearly produces biased results. As the following table illustrates, applying modified ATC to the current traffic group substantially inflates the revenues available to the SARR.

[27] BNSF Petition for Reconsideration, at 11-16.

Table III.A-4[28]
Comparison of 2005 Revenue Available to the SARR
Under Original and Modified ATC

	2005 LRR Revenues Cross-Over Traffic
STB Modified ATC	$127.2 million
Original ATC	$115 4 million
Difference	$11 8 million

d. Other

(1) Adjustment to revenue of rerouted traffic to eliminate impact of gaming.

As demonstrated above, WFA/Basin have manipulated the outcome of the MMM calculation by gaming the distribution of R/VC ratios for traffic carried by the SARR. Specifically, WFA/Basin displaced profitable traffic that moves on the replicated lines in the real world and substituted for it rerouted traffic that has higher R/VCs than the displaced traffic. This is more egregious than simply loading a traffic group with highly-rated traffic, the technique the Board criticized in Ex Parte No. 657 (Sub-No.1). WFA/Basin relied upon rerouting to achieve a degree of loading that could not have been accomplished with just traffic that moves over the SARR route in the real world and thereby transformed a rate that the Board found reasonable in September 2007 into a rate that now appears unreasonable. The net result of WFA/Basin's manipulation of the traffic group was to minimize the amount of SARR traffic moving at below

[28] *See* BNSF TSR workpapers "STB LRR Traffic and Revenues_ModifiedSAC_BNSF 7-14 D.xls" and "STB LRR Traffic and Revenues_ModifiedSAC_BNSF 7-14 Orig ATC Den.xls." These calculations were made assuming BNSF densities for both on and off SARR segments and without any modification to underlying URCS costs.

the average R/VC required for the SARR to earn precisely SAC, and thereby to maximize the reduction in the issue traffic rate.[29]

This case, which could be the first one in which the Board applies its new MMM rate reduction methodology, illustrates vividly the potential for abuse by using high rated rerouted traffic to game MMM. Particularly given the limitations imposed by the Board on the scope of WFA/Basin's supplemental evidence, it would be appropriate for the Board to reject WFA/Basin's evidence without any analysis of the SAC results or to exclude the rerouted traffic and the associated revenues from the SARR traffic group It would also be appropriate for the Board to adopt a rule providing that rerouted traffic cannot be accepted in the post-MMM era unless the shipper makes an affirmative showing that the use of rerouted traffic advances underlying SAC objectives, *e.g.*, identifying inefficiencies in the defendant's network or operations. BNSF urges the Board to pursue this approach in the interest of establishing principles of fairness in rate litigation that extend to railroad defendants as well as complaining shippers.

In the event that the Board is unwilling to exclude the rerouted traffic in its entirely,[30] BNSF believes that the appropriate method to neutralize WFA/Basin's gaming of the traffic

[29] The magnitude of the reduction WFA/Basin now claim is telling. For 2005, WFA/Basin assert that the maximum rate should be $2.57 per ton. WFA/Basin TSO Nar at III-H-5. This would reduce by more than 50% BNSF's actual 2005 rates ($5.69 to $6.15, depending on mine origin) The proposed maximum rate is less than the rate under the expiring contract, *see September 2007 Decision* at 2 The proposed maximum rate is also $.59 less per ton than the maximum rate of $3 16 advocated by WFA/Basin in the prior iterations of their case *See* WFA/Basin First Supp. Reb at 18 (filed July 14, 2006).

[30] As noted above, the rerouting of Jeffrey is particularly inappropriate, since WFA/Basin had the opportunity in their opening evidence to have the SARR obtain exactly the same amount of revenue that the SARR now assumes from Jeffrey and the adoption of ATC had absolutely no effect on the revenue that would be contributed by Jeffrey handled as a local movement. Therefore, the Board could exclude only the Jeffrey revenue as an alternative means of addressing WFA/Basin's gaming.

group is to adjust the revenues for the rerouted traffic to more closely approximate the revenues the SARR would have achieved in the absence of gaming. Because the Board leaves traffic selection to the complaining shipper, BNSF is not in a position to posit what an optimal, non-gamed traffic group for the SARR would have been. In the absence of proof of such an alternative, however, it is reasonable to assume that the distribution of R/VCs for a non-gamed traffic group ought to resemble the distribution of R/VCs for the traffic that actually moves over the replicated lines in the real world.[31]

The most straight forward method to put the revenues for the rerouted traffic in line with the revenues that would be derived from a non-gamed traffic group is to revise the revenues on the rerouted traffic so that the R/VCs of the rerouted traffic are the same as the average R/VC of the real-world traffic that was inappropriately dropped by WFA/Basin so that the SARR could carry the rerouted traffic WFA/Basin rerouted approximately 19 million tons of traffic. To make the revenue adjustment, BNSF determined the aggregate R/VC ratio of these 19 million

[31] The Board implicitly made a similar assumption when it determined that maximum reasonable rates could be determined in a Simplified-SAC case based on the traffic that moves over an incumbent's line in the real world. In Ex Parte No. 646, the Board indicated that using the incumbent's existing traffic in a Simplified-SAC case would be an appropriate means for accomplishing the primary objective of a SAC test, eliminating cross subsidies. *Simplified Standards for Rail Rate Cases* at 13-14. The Board noted that Simplified-SAC would not fully accomplish the second objective of the SAC test, detecting and eliminating "the costs of inefficiencies in a carrier's investments or operations." *Id* at 13 The Board indicated that it was this second objective that was served by permitting a complainant in a Full-SAC case to group traffic and reconfigure the railroad.

The Board noted that Simplified-SAC does reduce the opportunity of complainants to address an incumbent's inefficiencies by eliminating the ability to group traffic or reconfigure the network. Correcting for WFA/Basin's gaming by modifying the revenues for their rerouted traffic does not prevent WFA/Basin from adequately detecting and eliminating inefficiencies WFA/Basin are already capturing significant "efficiencies" beyond those realized by the real world BNSF due to the Board's operating and construction cost assumptions. Moreover, as noted above, it seems highly improbable that BNSF's PRB lines and operations have additional inefficiencies that could be "eliminated" by virtue of the reroutes and dropping of profitable traffic that WFA/Basin engaged in here.

excluded tons and assumed that the rerouted traffic generated the same R/VC ratio. This adjustment is appropriately conservative because it does not require exclusion of the rerouted traffic entirely. It does, however, directly address the gaming at issue here: the attempt to manipulate the outcome of MMM by substituting higher R/VC traffic for lower R/VC traffic. Moreover, if any reduction of rates were to be warranted, this adjustment would ensure that MMM would not be applied to a traffic group that had an artificial distribution of R/VC ratios. Instead, by attributing to the rerouted traffic the same R/VC ratios as the excluded traffic, MMM would operate within the rate structure established by BNSF on the traffic actually using the issue traffic facilities.

As noted previously, the excluded traffic, while lower rated than the rerouted traffic, nevertheless generates a positive contribution to the SARR. Therefore, attributing the R/VC of this traffic to the rerouted traffic allows that traffic to generate for the SARR a positive contribution while eliminating the distortion that results from loading up the SARR with high rated traffic and eliminating profitable but lower rated traffic. BNSF demonstrates that the excluded traffic generates a positive contribution by comparing the incremental revenues that would be earned by a SARR to the incremental costs incurred by a SARR in handling the traffic. As the Board recognized in *PPL Montana*, this is the proper way to determine whether traffic is profitable to a SARR, not an examination of the R/VC ratio of the traffic based on the incumbent's URCS costs.

To demonstrate that the excluded traffic would have offered positive contribution, BNSF developed a comparison of two SARRs, one with and one without the excluded traffic. BNSF witness Dave Wheeler modeled the SARR both with ("SARR I") and without ("SARR II") the approximately 19 million tons of excluded traffic For purposes of this comparison, SARR I

carried the approximately 45 million tons of traffic from WFA/Basin's TSO traffic group that was not rerouted plus the approximately 19 million tons of excluded traffic for a total of approximately 64 million tons SARR II carried only the approximately 45 million tons of non-rerouted traffic [32] Starting with the SARR configuration that BNSF is sponsoring in this round of evidence, Mr. Wheeler used the RTC model to determine the reduced facility requirements for SARR II that would be necessary to transport its smaller traffic volume.[33] Once Mr. Wheeler had determined the reduced capacity required for SARR II, he ran the RTC model with the appropriate peak-year traffic and provided the output to BNSF witnesses Plum and Gouger who determined the operating and construction costs for SARR II.[34] Mr. Wheeler also ran the RTC model for SARR I, using the BNSF sponsored configuration for the larger SARR, and provided the results to witnesses Plum and Gouger.[35] Operating and capital carrying expenses were calculated for the larger SARR I. The incremental costs and incremental revenues generated by the 19 million tons excluded by WFA/Basin were then calculated by comparing the revenue and

[32] The referenced tonnage figures are for 2005. All modeling was performed using peak year (2024) volumes for the same shippers.

[33] *See* BNSF TSR workpaper "Alt 2 Capacity Reductions.xls." Since the SARR is already mostly a single-track railroad, the facility requirements did not change substantially when 19 million tons of traffic were removed

[34] *See* BNSF TSR workpapers "STB Operating Expense 3rd Supp_051308 alt 2.xls," "Spot Maint wfa3rdsup - Alt2.xls," and "III - F TOTAL wfa3rdsupp - Alt2.xls." Operating and construction costs for purposes of this demonstration were calculated based on WFA/Basin's assumptions underlying their presentation of results in TSO workpaper "Exhibit_III-H-1.xls."

[35] *See* BNSF TSR workpapers "STB Operating Expense 3rd Supp_051308 alt 1.xls" and "Spot Maint wfa3rdsup - Alt1.xls." No changes to capacity were made for SARR I compared to WFA/Basin's TSO SARR, so WFA/Basin's construction costs were used for purposes of the comparison.

cost results for the two SARRS.[36] Over the 20-year DCF period, the excluded traffic generated more than $180 million in revenues in excess of the incremental SAC required to serve that traffic. Exhibit III.A-3 sets forth the comparison of revenues and costs for the two SARRs.

(2) Summary of revenues

Table III.A-5 below reports the SARR revenues as calculated by BNSF and compares them to the SARR revenues reported by WFA/Basin in their evidence at TSO Nar. III-H-2. The BNSF revenue calculations are based on an application of ATC using URCS as published by the Board for the base year, and include the following adjustments described above: (1) ATC is calculated using the incumbent's densities; (2) ATC is calculated as originally proposed by the Board; (3) revenues for the rerouted traffic are adjusted downward so that the R/VC for each rerouted move equals the aggregate R/VC for the traffic that was replaced by the rerouted traffic.[37]

[36] *See* BNSF TSR workpapers "Exhibit_III-H-1 WFA Alt 1.xls" and "Exhibit_III-H-1 WFA Alt 2 xls."

[37] LRR revenues reported in the first column are from WFA/Basin TSO workpaper "Exhibit_III-H-1.xls," worksheet "Netting." The underlying calculations for the BNSF Revenues column are reported in BNSF TSR workpaper "STB LRR Traffic and Revenues BNSF 3-26-07 Reply_7-14 OATC D.xls." Calculation of the revenue adjustment for rerouted traffic is contained in BNSF TSR workpaper "MMM Model Linked to III-H-1 FTI OATC D.xls " Although BNSF believes that the above calculations reach the correct result, for the Board's convenience, the workpapers submitted by BNSF also include revenue calculations made under alternative ATC assumptions. *See* BNSF TSR workpapers "STB LRR Traffic and Revenues BNSF 3-26-07 Reply_7-14 D.xls" (STB modified ATC with BNSF densities); and "STB LRR Traffic and Revenues BNSF 3-26-07 Reply_7-14 OATC.xls" (Original ATC with LRR densities).

Table III.A-5
LRR Revenues
($ in Millions)

Period	WFA Revenues	BNSF Revenues	Rerouted Revenue Adjustment	Adjusted BNSF Revenues
2004	$58.3	$54.6	($12.6)	$42.0
2005	$236.8	$221.2	($45.9)	$175.3
2006	$250.6	$234.3	($49.1)	$185.1
2007	$259.7	$243.3	($49.0)	$194.3
2008	$262.3	$246.0	($49.2)	$196.7
2009	$274.2	$255.4	($49.5)	$205.9
2010	$277.0	$258.1	($49.9)	$208.2
2011	$281.9	$262.5	($50.8)	$211.7
2012	$287.9	$268.1	($51.8)	$216.4
2013	$294.7	$274.4	($52.8)	$221.6
2014	$299.8	$279.2	($53.7)	$225.5
2015	$299.1	$278.5	($52.7)	$225.9
2016	$307.4	$286.2	($54.6)	$231.6
2017	$319.1	$297.1	($57.0)	$240.1
2018	$330.4	$307.7	($59.3)	$248.4
2019	$339.4	$316.0	($61.3)	$254.7
2020	$348.8	$324.8	($63.2)	$261.6
2021	$359.5	$334.6	($65.6)	$269.0
2022	$368.2	$342 8	($67.3)	$275.5
2023	$378.4	$352.2	($69.5)	$282.7
2024	$291.9	$271.7	($54.2)	$217.5

B. STAND-ALONE RAILROAD SYSTEM

1 Route and Mileage

The reconfigured LRR as proposed by WFA/Basin in their Third Supplemental Opening (TSO) extends from Eagle Butte Jct , WY, on the north to Northport, NE, on the south, with a branch that serves the Black Thunder and Jacobs Ranch PRB coal mines and a second branch that serves LRS and an interchange with BNSF at Moba Jct. The reconfigured LRR extends 92 miles beyond the former southern end at Guernsey, WY. WFA/Basin eliminated the portion of the route needed to interchange trains with BNSF at Campbell and Donkey Creek. WFA/Basin TSO Nar. at III-B-1. As redesigned, the WFA/Basin proposed LRR has 301 45 route miles. WFA/Basin TSO Table III-B-1.

BNSF does not dispute WFA/Basin's calculation of 301.45 constructed route miles for the reconfigured LRR, as set out in WFA/Basin TSO Table III-B-1. However, when analyzing the WFA/Basin proposed operating plan and WFA/Basin's RTC model, BNSF experts Loren Mueller and Dave Wheeler found that the LRR trains interchanging with UP at Northport stopped 2.5 miles short of the interchange point with UP. BNSF currently operates over UP track to the changing point and BNSF's experts assume that the LRR would do the same. Therefore, the actual route miles for the reconfigured LRR would include 301.45 constructed route miles and 2.5 miles of trackage rights over the UP. The consequences of the need to operate over UP lines through trackage rights are discussed more fully in Section III.C below.

BNSF Table III.B-1 sets out BNSF's route miles for the reconfigured LRR.

Table III.B-1

LRR LINE SEGMENTS AND ROUTE MILES		
Segment	**BNSF Subdivision**	**Mileage**
Main Lines		
Eagle Butte Jct. to West Donkey Creek	Campbell, Black Hills	9.99
West Donkey Creek to Orin Jct.[1]	Orin	127.91
Orin Jct. to Wendover	Orin, Canyon	30.93
Wendover to Northport[2]	Canyon, Valley	104.00
Total Main Line Miles		272 83
Branch Lines		
Reno	Reno	5 76
Moba	Front Range	20.44
Total Branch Line Miles		26.20
LRR Portion of Mine Spurs		2.42
Total Constructed Route Miles		**301.45**
Trackage Rights over UP at Northport		2.50
Total Constructed & Trackage Rights Miles		303 95

[1] Includes 1.75 miles to connect to BNSF at Orin Jct. for interchange

[2] Includes 1.0 miles to connect to UP and BNSF at Northport for Interchange

The trackage rights segment is shown in BNSF Third Reply Exhibit III.B-1.

2. Track Miles and Weight of Track

The reconfigured LRR as proposed by WFA/Basin includes 441.55 miles of track, including 404.61 mainline, passing sidings and branch lines, and an additional 36.94 miles of yard, interchange, helper pocket/setout/MOW, and mine and destination spur tracks. WFA/Basin TSO Nar at III-B-7, Table III-B-2. As discussed below, BNSF does not take issue with WFA/Basin's capacity assessments for the LRR as reconfigured, and therefore BNSF does not dispute WFA/Basin's methodology for calculating track miles. BNSF made one small modification to the LRR's track miles to include a two-mile siding that WFA/Basin appear to have overlooked. BNSF, therefore, has a total track mile count of 443.5 miles.

a. Mainline, Passing Sidings and Branch Lines

WFA/Basin's reconfigured LRR has 296.28 miles of mainline and 108.33 miles of passing sidings and branch lines, for a total of 404.61 mainline miles. In comparing the configuration of the LRR as reflected in WFA/Basin's RTC model with WFA/Basin's TSO Exhibit III-B-1, BNSF engineering consultant Cassie Gouger discovered that, although in the RTC, the LRR relied on the use of the Winters Siding on the Valley subdivision, WFA/Basin failed to include that siding in their Exhibit and construction costs. The Winters siding is located on the Valley Subdivision between MP 23.9 and MP 25.9, as shown in BNSF Third Reply Exhibit III B-2 Thus, BNSF added 2.0 miles to the LRR's other main tracks for a total of 110.33 second main track miles. This brings the total mainline track miles of the LRR to 406.61.

BNSF does not dispute WFA/Basin's specifications of 136-pound premium continuous welded rail (CWR) for all mainline tracks from the end of the double track at MP 17.21 on the Orin subdivision to Northport and in all main-track curves of 3 degrees or more. BNSF also

accepts the use of 136-pound standard CWR for mainline tracks between Eagle Butte and MP 17.21 on the Orin subdivision and on the Reno and Moba branch lines.

BNSF's operating experts do not dispute WFA/Basin's speed (maximum 60 mph) and weight (286,000 pounds per car) specifications

b. Other Tracks

BNSF agrees with WFA/Basin's counts of the track miles of mine spurs (2.42 miles) and set-out, helper, MOW and interchange tracks (8.89 miles) on the reconfigured LRR, totaling 11.31 miles of non-mainline track. BNSF accepts the specifications of 115-pound relay CWR on set-out, helper, MOW tracks, 115-pound relay CWR on all interchange tracks except the interchange tracks at Northport, and 136-pound standard CWR on the Northport interchange tracks WFA/Basin TSO Nar at III-B-9.

3. Yards

In their TSO evidence, WFA/Basin redesigned the LRR with only one yard which they located at Orin, WY, between Fisher Jct. and Orin Jct. The Donkey Creek and South Logan yards that were part of the original LRR configuration were eliminated, while the functions of the Guernsey Yard were transferred to Orin. The Orin Yard consists of 20 tracks and contains a total of 25.63 miles of track. BNSF does not challenge WFA/Basin's planned location, functions and number of tracks in the Orin Yard.

BNSF accepts WFA/Basin's specification of 115-pound relay CWR for yard tracks and 136-pound premium rail for the main running tracks through Orin Yard.

Table III.B-2 below compares WFA/Basin's and BNSF's track miles for the LRR.

TABLE III.B-2
COMPARISON OF WFA/BASINS' CALCULATION OF MILES WITH BNSF'S CALCULATION OF MILES OF LRR TRACK

Type of Track	WFA/Basin[1]	BNSF[2]	Difference
Mainline Single Track [1]	296.28	296 28	0
Other Mainline Track [2]	108 33	110.33	2 00
Total Mainline Track	404.61	406 61	2.00
Mine Spurs	2.42	2.42	0
Set-Out Track, Helper, MOW, I/C	8.89	8.89	0
Yards	25.63	25.63	0
Total	**441.55**	**443.55**	**2.00**

[1] Single track miles equals total route miles, excluding mine spurs and interchange tracks. *See* BNSF TSR Workpaper "TRACK_MILES_WORKSHEET_BNSF_3RD_REPLY.xls" sheet "Route & Track Miles Summary."
[2] Equals total miles for second and third main tracks and passing sidings.

While BNSF does not challenge the track layout of the Orin Yard, it does take issue with vehicular accessibility to and within the yard Orin Yard serves as headquarters for the LRR and has various buildings and facilities that will require access for cars, trucks, maintenance vehicles, and fuel trucks operated by both railroad employees and non-railroad vendors and contractors. WFA/Basin did not provide any public access to the proposed Orin Yard.

As the Delorme Street Atlas shows, Highway 18 runs along the south side of the proposed Orin Yard and is located 800 to 4,500 feet from the mainline tracks.[1] WFA/Basin located the locomotive shop, fueling tracks and car shop on the north side of the yard with all the buildings – headquarters, crew change and MOW buildings – on the south side. Their proposed layout creates two access issues. First, there needs to be access – and more than one – to the yard from a public roadway. Second, these accesses will have to cross the two mainline tracks

[1] BNSF TSR Workpaper "Delorme Orin Yard Area.pdf."

that WFA/Basin proposed. The two main crossings should be grade separated to allow access – and especially emergency access – at any time.

BNSF engineering consultant, Ms. Cassie Gouger, developed a layout of the yard that would provide the needed access. She used Union Pacific's Bill Yard, which is located at MP 80 to MP 85 on the Orin subdivision, just 40 miles from the proposed Orin Yard, as an example. UP uses 14' x 14' box culverts for access within its Bill Yard. BNSF TSR workpaper "Box at MP 84.01.jpg" gives a view of one of the box culverts under the mainline and yard tracks in Bill Yard. Two grade-separated accesses provide access to crew change and inspection facilities. Unlike the proposed Orin Yard, Bill Yard does not have other facilities, such as the headquarters building, a car shop, a locomotive shop and fueling facilities that require access by non-railroad employees.

In her design of the Orin Yard, Ms Gouger included two grade-separated accesses. On the west end, she placed a grade separation with a bridge under the two mainline tracks to provide a two-lane roadway to access the yard. This roadway services the locomotive shop, fueling tracks, and fueling platform. On the east end, the access is a box culvert.

On the geographic west end of the yard, there is an existing at-grade private crossing (MP 126.29). Pictures of the current crossing are in BNSF TSR workpaper "orin_photolog_062008.pdf." The road is Route 319 south of Highway 18, but changes to a one-lane gravel private roadway north of Highway 18.[2] BNSF upgraded the roadway to a two-lane section to accommodate the traffic that will need to access the facilities and buildings on the south side, and provided a grade separation of the roadway and the two mainline tracks at MP 126.29. This requires 860 LF of new roadway from Highway 18 north to the LRR mainline

[2] *Id.*

tracks The costs for the 860 LF of new roadway are included in BNSF's road property investment costs in Section III.F.7. The railroad bridges needed to access the north end of the yard are included in the road property investment bridge costs as discussed in Section III.F.5

The east end of Orin Yard presents a more difficult situation because WFA/Basin placed the yard just west of the Bridge at MP 124.00, which limits the access options at this location. If the access were placed east of Bridge 124.00, it would need to cross only the two mainline tracks, but another bridge would be needed to access the yard to the west. The other option would be to cross within the yard, requiring a longer structure to span the multiple yard tracks. Either option requires crossing Shawnee Creek which flows east to west between the existing BNSF tracks and Highway 18. To minimize the costs, BNSF constructed a 24-foot wide, 3,250-foot long access road just west of the car shop at MP 124.66 This requires a crossing of Shawnee Creek, a 14' by 14' box culvert under the yard tracks, and an additional 1.14 acres of right of way to accommodate the vehicular traffic adjacent to the car shop tracks.

BNSF constructed the roadway bridge over Shawnee Creek to the same specifications as the existing railroad bridge at MP 124.43, which crosses the largest drainage that flows into Shawnee Creek, as discussed more fully in Sections III.F.2 and III.F.5. The box culvert at MP 124.66 traverses under 14 yard tracks and is 508 feet long. This access also replaces the private crossing at MP 124.84

As discussed in Section III F., vehicular access is also necessary between the tracks, and just as the yard tracks must cross one or more of the three drainages that flow through the yard, vehicles and personnel accesses must also cross these drainages. Therefore, BNSF has added roadway crossings over the drainages as needed to provide access by fuel trucks, inspection vehicles and other vehicles and personnel requiring access between tracks

The costs associated with these access structures are included in the road property costs and are discussed in Section III.F. Pictures and schematics of the yard changes are in BNSF's TSR workpapers "Orin Yard Basemap 6 19.pdf" and "Delorme Orin Yard Area.pdf."

4. Use of RTC Model

BNSF's RTC and operating experts Wheeler and Mueller reran WFA/Basin's RTC model of the reconfigured LRR to determine whether there was sufficient capacity on the line to accommodate the new traffic group selected for the reconfigured LRR. They determined that there were no capacity problems that required additional infrastructure. However, they did find operational inefficiencies in WFA/Basin's proposed operating plan that would require additional time for crew changes and interchange operations with both the UP and BNSF at Northport. As described more fully in Section III.C below, BNSF's operating experts addressed these concerns through increasing the times in the model rather than through constructing additional facilities.

BNSF's operating experts also found operating inefficiencies in the use of crews originating at Orin to serve trains loaded at the northern PRB mines. BNSF's experts addressed those inefficiencies through adjustments in the LRR crew requirements.

The RTC model also showed that the trains requiring refueling at the Orin Yard were not directed to the tracks in the Orin Yard that were equipped with fixed fueling facilities. However, rather than construct additional tracks or reroute trains to the proper tracks, BNSF adopted a plan to fuel the trains on the other yard tracks through the use of tank trucks.

5. Other

a Joint Facilities

The LRR route has no joint facilities

b. Signal/Communication Systems

BNSF accepts WFA/Basin's basic assumptions of (1) CTC traffic control system for all of the LRR's lines (including the branch lines), with power switches that are controlled by centralized dispatchers located at the railroad's Orin headquarters, (2) use of power switches for the helper pocket tracks, the relay tracks in Orin Yard, and the connections at Northport and Moba Jct. to the LRS spur at Moba Junction., and (3) use of hand-throw switches for all other switches (i.e , interior yard and set-out track switches). WFA/Basin TSO Nar. at III-B-13-14.

The LRR's signal and communication systems, and BNSF engineering consultant's corrections of WFA/Basin's signal counts are discussed in more detail in Section III.F.6 below.

c. Turnouts, FEDs and AEI Scanners

BNSF accepts WFA/Basin's basic assumptions concerning the size and placement of turnouts, FEDs and AEI Scanners. BNSF's counts of turnouts, failed equipment detectors, and AEI scanners on the LRR are included in the TSR Workpapers for III.F.3 and III.F.6.

C. OPERATING PLAN

1. General Parameters

As WFA/Basin's description of the revised operating plan for the LRR shows, the new LRR is dramatically different from the old one. Among the most significant changes are that WFA/Basin have rerouted huge volumes of coal traffic that does not use this route in the real world, the route has been extended from Guernsey, Wyoming, to Northport, Nebraska, the principal yard was moved from Guernsey to Orin, Wyoming, and the interchange point is now Northport rather than Guernsey. The new LRR serves all PRB coal on one north-south route that has a single entrance to and exit from the PRB. Although WFA/Basin assert that the changes enable the LRR to transport its traffic "efficiently" (WFA/Basin TSO Nar. at III-C-2), the new plan is in fact less efficient in several important respects, primarily due to the rerouting and the new interchange point (as discussed in more detail below).

The following discussion is organized in the same way as the discussion in WFA/Basin's Narrative. It identifies the aspects of WFA/Basin's revised operating plan that BNSF accepts, and those that BNSF disputes.

a Traffic Flow and Interchange Points

Subject to BNSF's objections to WFA/Basin's fundamental changes in their SAC evidence in this reopening, BNSF accepts WFA/Basin's operating plan with respect to traffic flow, traffic density, and train counts. However, WFA/Basin's operating plan does not include adequate arrangements for interchanges at Northport, both for trains that the SARR interchanges with BNSF and for trains that it interchanges with UP. This portion of BNSF's evidence is sponsored by Loren Mueller, Robert Plum, and David Wheeler.

(1) BNSF's and UP's current operations at Northport

BNSF has two lines that intersect at Northport. The Angora Subdivision runs south from Alliance, Nebraska, to Sterling, Colorado, and passes through Northport approximately 30 miles south of Alliance and 80 miles north of Sterling. The second line is the Valley Subdivision, which runs eastward from Guernsey, Wyoming, to Northport.

The UP Crossing. All traffic heading south toward Sterling from the intersection of the Angora and Valley Subs, and all traffic heading north from Sterling to that intersection, must cross the UP main line at Northport. UP's South Morrill Subdivision passes through Northport, running predominantly east and west. The South Morrill Sub crosses the Angora Sub at grade approximately 500 feet south of the junction of the Angora and Valley Subs. UP and BNSF coordinate the traffic at the crossing, and because of the heavy BNSF and UP traffic at the crossing (which can exceed 100 trains a day), BNSF trains to or from Sterling, and UP trains on the South Morrill Sub, often must wait for substantial periods before they may cross the other railroad's tracks.

UP Interchange Traffic. Just south of the BNSF/UP crossing, BNSF and UP maintain an interchange connection at Northport. This interchange is primarily used for coal trains destined for or returning from Westar Energy's Jeffrey generating station in Kansas (traffic that accounts for a substantial portion of LRR's annual tonnage), so this Reply refers to this traffic as the Jeffrey traffic. BNSF handles loaded Jeffrey trains from the mine to the interchange point at Northport, and UP handles them from Northport to the Jeffrey plant.

Before BNSF hands Jeffrey trains over to UP, BNSF crews take the trains across a 0.78-mile track that connects to the UP main line. This connecting track intersects with BNSF's Angora Sub immediately after the Valley Sub's south leg joins the Angora Sub. Before the Jeffrey trains reach the two interchange tracks (described below), the trains must travel a short

stretch of the UP main line. After traveling this stretch of the UP main line, the trains enter one of the two interchange tracks that UP owns and maintains. Each of the two interchange tracks is approximately 1.4 miles long between the clearance points. The distance from the start of the connecting track to the end of the interchange tracks where BNSF stops the train (including the distance on the UP main line) is approximately 2.6 miles. Empty trains that UP crews deliver to the interchange tracks and that BNSF crews then pick up for the trip to the mines follow the same route in reverse. The lay-out of this interchange trackage is illustrated in BNSF Third Reply Exhibit III.B-1.

To prevent congestion at the interchange point, BNSF holds loaded Jeffrey trains (mainly at Alliance because there is no designated BNSF trackage at Northport to hold these trains) until there will be room for them on UP's Northport interchange tracks as soon as they reach that location. Only when one of the interchange tracks at Northport is vacant can an Alliance-based crew bring the loaded Jeffrey train to Northport for interchange. Similarly, BNSF must hold the trains until they can enter the stretch of the UP main line from which the Jeffrey trains enter the interchange tracks.

When UP brings an empty Jeffrey train to Northport for the return trip to the mines, an Alliance-based BNSF crew takes the train to Alliance. If there is not an empty Jeffrey train waiting at Northport when a loaded train arrives, BNSF crews that bring loaded trains to the interchange point are taxied back to Alliance.

(2) The SARR's operations at Northport

WFA/Basin assume that all SARR trains brought to Northport are interchanged with either BNSF or UP on their interchange track. Accordingly, it is necessary to allow a reasonable

waiting or dwell time for interchange until the trains can move with a new crew and a clear track. With respect to all of these trains, WFA/Basin provide for an interchange time of 30 minutes.

With respect to trains interchanged with UP, WFA/Basin's operating plan does not provide for SARR crews to take Jeffrey trains that are interchanged with UP to the UP interchange tracks. Instead, the SARR crews stop at the end of the SARR's tracks, 2.6 miles short of the point where BNSF crews currently deliver Jeffrey trains to UP. In addition, WFA/Basin do not provide for any interchange time for empty trains that the SARR crews pick up on UP's interchange tracks.

In the real world, the Jeffrey trains are routed through Alliance and use the Angora Sub and connecting track to access the UP main line and interchange tracks. Under WFA/Basin's operating plan for the SARR, these trains are rerouted to reach Northport over the Valley Sub. As a result, SARR crews must take the Jeffrey trains across BNSF's main line on the Angora Sub to reach the interchange point with UP.

All SARR train crews operate in service from Orin and are taxied to a hotel at Northport to get their mandatory rest. Once the crew has received its mandatory rest, it is available to return from Northport to Orin with an empty train and then go off duty.

(3) Interchanges between the SARR and BNSF

The 30-minute interchange time that WFA/Basin allow for interchanges between the SARR and BNSF is unreasonably short. The interchange time should be 90 minutes for traffic southbound from Northport to Sterling, and 60 minutes for traffic northbound from Northport to Alliance. The majority of loaded trains interchanged at Northport from the SARR to BNSF travel south toward Sterling rather than north toward Alliance.

(a) Southbound trains

Four factors explain why 90 minutes is a reasonable dwell time for trains that are headed south from Northport to Sterling

First, it would take time for a BNSF crew to arrive to take over the train after the SARR brings it to the interchange point. Because Northport is not a crew change point for BNSF, BNSF would taxi crews from Sterling to pick up loaded trains from the SARR. Sterling-based BNSF crews would risk outlawing if they take an empty train from Sterling to Northport and then return to Sterling with a loaded train because of the transit time between Sterling and Northport.[1] The BNSF crew would first be assembled in Sterling, and then the crew would be taxied from Sterling to Northport – a trip for which the driving time alone is approximately 2 hours (84 miles at the posted speed limit). Especially because of the considerable variation in the SARR's transit times from Orin to Northport (between 4 and 7 hours),[2] BNSF cannot reasonably be expected to keep Sterling-based crews waiting on duty at Northport for trains to show up there. It is standard railroad operating procedure not to assemble and deliver a crew to an interchange point until the train has arrived at the interchange point. The 30-minute interchange time proposed by WFA/Basin is particularly inadequate because of the 2-hour highway taxi time from Sterling to Northport.

Second, as explained above, the interchange time must provide for holding trains on the SARR's tracks until BNSF can accommodate them on the main line heading south.

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[1] BNSF crews bringing empty trains from Alliance would have enough time on a 12-hour shift to take a loaded train bound for Sterling that BNSF received via interchange from the SARR, provided the train was waiting at Northport when the crew delivers the empty train from Alliance.

[2] *See* BNSF TSR workpaper "Timestamp Outlaw.xls" sheet "Northport Transits."

Third, the operating plan must allow sufficient time for trains interchanged between the SARR and BNSF to wait at Northport until the UP crossing is clear. Southbound traffic interchanged with BNSF has to cross the heavily used UP main line 500 feet south of the interchange point. The UP track is so close that even if the front of the train were held on BNSF tracks, the rear of the coal train would occupy SARR tracks. As shown in BNSF Third Reply Exhibit III.C-1, the average train speed of loaded trains on the SARR moving from Orin to Northport is substantially faster than the actual speed of BNSF's trains from Orin to Northport. In the expert opinion of Loren Mueller, the likely reason for this discrepancy is WFA/Basin's failure to account for delays in crossing the UP mainline. BNSF and the SARR operate essentially the same number of trains operating the same track configuration between Guernsey and Northport. *See* BNSF TSR workpaper "Orin to Northport Train Counts.xls." As a result, the speeds for SARR trains and BNSF trains in this direction should not be radically different.

Fourth, the interchange time would be longer than 30 minutes because BNSF crews would need additional time to add the fourth locomotive to the rear of the train before leaving the SARR trackage at Northport. The fourth locomotive is needed for this route in order to get loaded trains over Palmer Hill. WFA/Basin's operating plan recognizes the need to remove the fourth locomotive unit from BNSF trains coming from Sterling, and to add it to trains heading to Sterling; WFA/Basin constructed a 200-foot track for storing this unit. WFA/Basin TSO Exhibit III-B-1, page 9. Adding or removing this locomotive necessarily takes considerable extra time before the train is ready to depart the interchange tracks. BNSF's outbound crew must taxi to the location of the fourth locomotive, make at least a cursory inspection of the locomotive, and request and receive permission from the SARR dispatcher before moving the locomotive to the rear of their designated train. After making this move, the crew must couple air hoses and cables

to connect with the existing rear locomotive. The crew must then be transported back to the head end of the train where it will activate the DP communication link between head-end and rear-end locomotives. Finally, after a set and release of the train air brakes, the crew could depart, but only after obtaining permission from the SARR and BNSF dispatchers.

BNSF's proposed 90-minute dwell time is consistent, and WFA/Basin's proposed 30-minute dwell time is inconsistent, with BNSF's real-world experience. BNSF currently effects crew changes at Sterling, where it bases crews, and trains stop at Sterling only for crew changes, without fueling, servicing, or other activities that increase dwell time. The record demonstrates that the average dwell time at Sterling for these crew changes is 85 minutes. *See* BNSF TSR workpaper "BNSF Historic Dwell Times xls" sheet "Dwell Times" Cell K28. Crew changes when the SARR and BNSF interchange at Northport are likely to take substantially longer than BNSF-to-BNSF crew changes at Sterling because (1) coordination between different railroads inevitably adds to the time and (2) BNSF must taxi Sterling-based crews to Northport. It is also unrealistic to think that the SARR's dwell times at Northport would be substantially shorter than BNSF's dwell times at Sterling because Sterling is one of the three locations (along with Guernsey and Alliance) that would supply BNSF crews for the trains interchanged with the SARR – the record provides no basis to assume that BNSF could provide Sterling-based replacement crews almost 90 miles from Sterling than it could at Sterling itself.

The Board did not address this issue in the prior phase of this case. The 30-minute dwell time it adopted at Guernsey for interchanges between the SARR and BNSF was reasonable because BNSF bases crews at Guernsey, which eliminates the time needed to transport a BNSF crew to the train, and the Guernsey interchange point was not 500 feet from a UP main line crossing, unlike the proximity to the Northport interchange that inherently creates delays.

(b) Northbound trains

Two factors explain why 60 minutes is a reasonable dwell time on the SARR for trains headed north from Northport to Alliance.

First, the trains must wait on the SARR's tracks until the BNSF crew arrives to take the train. Especially because of the considerable variation in the SARR's transit times from Orin to Northport (between 4 and 7 hours), BNSF cannot reasonably be expected to keep crews waiting on duty for trains to show up at Northport, and because Northport is not a crew change point for BNSF, BNSF would have to taxi a crew to Northport from Alliance for Alliance-bound trains. The BNSF crew would first be assembled in Alliance, and then the crew would be taxied from Alliance to Northport – a trip for which the driving time alone is over 30 minutes. As explained above, it is standard railroad operating procedure not to assemble and transport a crew to an interchange point until the train has arrived at the interchange point. Second, as explained above, the SARR must hold trains on its tracks until the BNSF main line can accommodate the movement.

Here again, the Board did not address in the prior phase of the case the length of a reasonable dwell time because WFA/Basin had the prior SARR interchange with BNSF at Guernsey, where BNSF bases crews.

(4) Interchanges between the SARR and UP

The preceding section demonstrates that WFA/Basin's operating plan is inadequate with respect to trains that the SARR interchanges with BNSF. WFA/Basin's operating plan is also inadequate with respect Jeffrey trains that the SARR interchanges with UP. WFA/Basin's plan does not explicitly address where and how the SARR-UP interchange occurs. WFA/Basin do not provide for any interchange tracks on the SARR where loaded trains could be held until a UP

crew arrives or empty trains could be held until a SARR crew arrives, nor do WFA/Basin provide for the delays that would result if Jeffrey trains were left on the SARR's main line until a UP crew arrived to move the train to North Platte. WFA/Basin therefore apparently assume that the interchange will occur the same way it occurs today in actual practice – at the interchange tracks that UP constructed for this purpose

WFA/Basin's operating plan fails to take into account two sets of factors: (a) the interchange time for loaded and unloaded trains, which includes time required to coordinate crossing the BNSF main line, using the UP main line, and (in the case of loaded trains) waiting for the UP interchange tracks to clear, and time required to perform other interchange-related functions; and (b) the time it takes to move Jeffrey trains 2.6 miles to and from the interchange point.

(a) Interchange times

Several factors make a 60-minute dwell time on the SARR for loaded trains interchanged with UP at Northport reasonable, and WFA/Basin's proposed 30-minute dwell time unreasonable. First, it will take time for the SARR to coordinate with BNSF the crossing of BNSF's main line on the Angora Sub. Whenever the tracks of two railroads cross each other, and especially when both tracks are reasonably heavily used, traffic slows down because the railroads must coordinate movements to avoid collisions. Second, the SARR needs time to coordinate with UP so that Jeffrey trains will not interfere with UP's traffic when the Jeffrey trains use the UP main line to the west of the interchange tracks. Having the SARR's Jeffrey trains hold on the 0.78-mile connecting track is not a solution because the rear end of the trains would block the BNSF mainline on the Angora Sub. Third, the SARR must hold trains until one of the two interchange tracks is available. Loren Mueller's years of operating experience in the

PRB indicate that loaded and empty trains currently sit on the interchange tracks for substantial periods until a UP or BNSF crew is available to pick them up, and the need to stage Jeffrey trains so that an interchange track is clear when they arrive increases the dwell time. This was confirmed by Mr. Mueller's recent conversations with Alliance Terminal Superintendent Mike Wirtz. All three pieces of this movement involving BNSF's main line, UP's main line, and UP's interchange tracks must coordinate sequentially, or the move could not be completed in a continuous manner without causing additional severe congestion on UP and BNSF In addition, consistent with general railroad operating rules, a BNSF Special Instruction[3] requires that the delivering railroad must set the hand brakes on the first five cars of the Jeffrey trains if it will be left unattended For these reasons, a 60-minute dwell time is reasonable for loaded trains, and WFA/Basin's proposed 30-minute dwell time unreasonable.

WFA/Basin's operating plan is also inadequate with respect to empty trains that the SARR takes from UP on the two interchange tracks at Northport. WFA/Basin provide for no interchange or dwell time for these trains, but it is reasonable to provide for 60 minutes. As with loaded trains, empty trains cannot move until both the UP main line and BNSF's Angora Sub main line are clear In addition, LRR crews must perform a variety of tasks to prepare these trains for departure, including releasing the handbrakes on the first five cars BNSF has therefore modified the operating plan to provide a total of one hour for the new SARR crew to perform this work on empty trains before the SARR, UP, and BNSF dispatchers all authorize a continuous movement over each of their track segments.

These dwell times proposed by BNSF are fully consistent with the Board's decision that a 30-minute dwell time is adequate for interchanges at Guernsey in WFA/Basin's prior

[3] *See* BNSF TSR workpaper "Timetable Powder Rv Division No6.pdf" at page 8, produced in discovery at BNSF/LR CD 0011.

configuration of its SARR. The prior configuration did not require SARR trains to cross both a BNSF main line and access the UP main line within 2 miles of the interchange point.[4]

(b) Additional transit distance

As explained above, WFA/Basin do not provide for moving the Jeffrey trains 2.6 miles from the SARR's tracks to the UP interchange tracks – a move that should be the SARR's responsibility just as it is BNSF's responsibility in the real world. That move, without any delays associated with the BNSF and UP main lines, would take approximately 15 minutes because the speed limit is approximately 10 miles per hour, and it takes additional time for the loaded trains to stop and for empty trains to reach the speed limit after they start to move. BNSF has modified the RTC modeling to include the additional 2.6 miles traveled by Jeffrey trains that WFA/Basin failed to include.

b. Track and Yard Facilities

With the exception described in Section III.B 2 relating to a passing siding omitted from WFA/Basin's TSO Exhibit III-B-1, WFA/Basin accurately describe the facilities that they use in their RTC modeling

c. Trains and Equipment

BNSF accepts WFA/Basin's train sizes, locomotive consists, equipment type, and ownership. Although BNSF accepts WFA/Basin's general methodology for calculating the number of locomotives and railcars the SARR needs, BNSF does not agree on the number of

[4] Another new factor making the 30-minute dwell time inadequate is that WFA rerouted the Jeffrey trains to go through Orin and Guernsey rather than Alliance. Thus, WFA/Basin's rerouting assumption introduces yet another operating issue that was not raised in their original SAC case and that does not exist in the real world.

locomotives and railcars that WFA/Basin uses because their transit times are too short for the reasons discussed in this Section III.C, and longer transit times result in a need for additional locomotives and railcars. BNSF has adjusted these numbers based on its corrections to WFA/Basin's RTC modeling.

(1) Locomotives

(a) Road locomotives

BNSF has recalculated the road locomotive requirement based on transit time data generated by BNSF's revised RTC analysis BNSF's analysis of the RTC model and its application to WFA/Basin's new SAC assumptions are discussed below. The LRR will require 75 SD70MAC's in the base year.

(b) Spare margin and peaking factor

BNSF accepts both the spare margin and peaking factor applied by WFA/Basin in their opening evidence.

(c) Helpers, yard and MOW locomotives

BNSF accepts WFA/Basin's quantity of locomotives used in helper, yard, and MOW services. Table III.C-1 shows the LRR's peak year locomotive requirement.

Table III.C-1
LRR Peak Locomotive Requirements

Types of Service	WFA/Basin Quality	BNSF Quantity	Difference
Road - SD70MAC	67	81	14
Helper/Switch/Work Train - SD40-2	8	8	0
Total	**75**	**89**	**14**

(2) Railcars

The LRR's car fleet has increased based on the transit times generated by BNSF's modified RTC analysis. Table III C-2 shows the LRR's freight car requirement by car type

Table III.C-2
LRR Peak Freight Car Requirements

Car Type	WFA Quantity	BNSF Quantity	Difference
Gondola -- Aluminum	170	185	15
Gondola -- Steel	238	258	20
Equipped Hopper -- Steel	149	184	35
Total	**557**	**627**	**70**

2. Cycle Times and Capacity

BNSF has recalculated the LRR's cycle times based on corrections described elsewhere in this Section III.C made to the RTC modeling. However, as explained further below, based on BNSF's modified RTC analysis, BNSF accepts WFA/Basin's capacity for both mainline and yards.

a. Revised Peak-Year Coal Traffic Volume

BNSF accepts WFA/Basin's calculation of the SARR's revised peak-year coal traffic volume.

b. Revised Peak-Period Train List

BNSF accepts WFA/Basin's calculation of the SARR's revised peak-period train list.

c. Revised Peak Week and Simulation Period

BNSF accepts WFA/Basin's calculation of the SARR's revised peak week and simulation period.

d. Revised Random Outages

WFA/Basin incorrectly calculate random failures on the Valley Subdivision WFA/Basin mistakenly assign two random failures to the Canyon Sub rather than the Valley Sub due to errors in its process of random assignment by milepost. WFA/Basin's TSO workpaper, "Dispatcher Alerts for New Peak Modeling Period_EstValley.pdf," makes explicit that it undertook to randomly assign six failures to the Valley Sub between Northport and Guernsey. However, WFA/Basin uses the wrong beginning and ending mileposts for the Valley Subdivision (line 1 on page 2 of the workpaper) and ends up assigning two (905 and 924) of these six failures to the Canyon Sub. All random failures in WFA/Basin's RTC model are in "LRR Final5 River. FORM_B " BNSF employs the same random process used by WFA/Basin and reassigns the two erroneous failures to mileposts MP 18.4 (not 90.5) and MP 84.9 (not 92.4).

WFA/Basin incorrectly codes all random failures into the RTC model and thereby negated the proper random failure effect. *See* WFA/Basin TSO workpaper "LRR Final5 River. FORM_B." WFA/Basin incorrectly enters a single milepost for each random failure, but the RTC model requires a beginning and ending milepost, both of which must align with a specific link in the RTC network, as well as a matching track number. BNSF corrected all of these mistakes when it reran the RTC model.

e. Configuration Changes

With the exception of the configuration changes discussed in Sections III.B and III.F and in this Section III.C, BNSF does not dispute the configuration changes identified by WFA/Basin. However, for reasons discussed elsewhere, BNSF does not agree that the changes assumed by WFA/Basin are consistent with the limited scope of this reopening

f. Changes in Helper Districts

BNSF accepts WFA/Basin's changes in helper districts

g. Changes in Crew Districts/Crew Assignments

WFA/Basin fail to take into account the fact that two categories of the SARR's trains – trains originating on the Campbell Sub and trains destined for Moba – will need to be re-crewed to prevent them from going into "outlaw" status. FRA rules prohibit a crew from working shifts longer than 12 hours, including highway time spent taxiing to the train and (as explained below) time spent preparing for a specific movement before the train actually starts to move. As demonstrated in BNSF TSR workpaper "Timestamp Outlaw.xls" sheet "Outlaw Trains," 53 of the 62 of trains from mines on the Campbell Sub to the Orin Yard will outlaw because the combined highway and transit times exceed 11 hours WFA/Basin witnesses agree that crews will outlaw if the combined highway and train transit times exceeds 11 – not 12 – hours. *See* WFA/Basin TSO workpaper "STB Annual Statistics 3rd Supp_051308.xls" sheet "Crew Taxes." Crew members must perform a number of tasks before they get on a train (such as getting special instructions relating to conditions on the track at the time), and after they board the train but before they can start to move the train. Thus, the federally mandated 12-hour shifts include many necessary activities in addition to taxi time and train transit time. The 9 trains that take less than 11 hours are all very close to 11 hours

With respect to loaded trains destined for the WFA/Basin plant at Moba, every train crew will be on duty for more than 12 hours when both taxi and train transit time are taken into consideration. This is true based on transit times generated by either WFA/Basin's or BNSF's RTC modeling, plus highway times based on the posted speed limit. *See* BNSF Third Reply Exhibit III.C-2. Most of WFA/Basin trains that originate on the Reno or Orin line will make it to

Orin but not to Moba, unless these trains get a crew change at Orin. Accordingly, BNSF has corrected WFA/Basin's RTC modeling for these trains originating on the Reno or Orin line to include a 30-minute dwell time at Orin to permit a crew change. Crews on Moba trains that originate on the Campbell Sub will "outlaw" before they reach Orin. To correct this, BNSF assumes that these trains will be rescued on the road and the rescue crew will take the train all the way to Moba. As surrogate to the delay time on the road, BNSF has assigned the 30-minute crew change time to these trains at Orin Yard [5]

BNSF Third Reply Exhibit III.C-3 color-codes the combined train and highway transit times: red indicates transit times of 12 hours or greater, yellow transit times of at least 11 but less than 12 hours; and green transit times of less than 11 hours.[6]

This analysis makes two conservative assumptions concerning both train transit times and highway taxi times. First, this calculation assumes that train transit time starts when the train is declared "loaded" and starts moving to Orin Yard, and ends at the entrance to Orin Yard. This assumption is conservative because (1) it requires the crew to be available as soon as the train finished loading, and (2) the transit time does not include the time it takes for the crew to move the train from the entrance of Orin Yard until it stops in Orin Yard – time that counts against the 12-hour limit Severe weather during western winters will also extend travel times. Second, the highway time includes only the highway time it takes to taxi the Orin-based crews that will take the loaded trains from the mine to Orin Yard. This conservative analysis of the highway time

[5] Most of the trains on the SARR that originate from mines on the Campbell Sub are rerouted. Rerouting traffic from the northern mines makes the SARR *less* efficient because the longer distance that these trains travel require additional crew changes. This provides confirmation that WFA rerouted these trains to game the results, not to improve the inefficiency of the SARR.

[6] *See* BNSF TSR workpaper "Timestamp Outlaw.xls" sheet "Exhibit III.C-3."

includes only the time from when the taxi driver starts driving at Orin and stops driving at the mine – excluding the time from when the crew logs on duty until the taxi driver starts the trip to the mine, and the time from when the crew disembarks from the taxi until the train actually starts moving away from the mine. The calculation concerning drive time also does not take weather conditions and food/comfort stops into consideration.

WFA/Basin's operating plan does not address this problem because it uses Rojo Junction, which is roughly half-way between the northern-most and southern-most mines to calculate the distance of trips. However, the "outlaw" issue arises only for trains that originate at mines north of Rojo Junction because the distance and travel time to and from those mines is longer.

To avoid outlawing, BNSF has assumed that all Campbell Sub trains will require a rescue crew on the road, and that the rescue crew will be able to rescue two trains in its 12-hour shift. This is a conservative approach for two reasons First, BNSF has not stopped the flow of the outlaw trains in its RTC modeling. When a crew hits the 12-hour mark, it must stop the train regardless of its location. If the 12-hour trains were to be stopped in RTC modeling, it would cause delays of not only the 12-hour train, but those trains both following and approaching the 12-hour train.[7] Therefore, BNSF's transit times are conservative because they do not reflect the delays that would be caused by the outlaw trains. Second, the assumption that a crew will have the time to perform two rescues in one 12-hour shift is conservative because the limited number of SARR trains on the north end of the network means there is a good chance that a second train would not be available for rescuing.

[7] The current RTC model does not have the logic to allow a train to stop on a siding as the crew approaches the end of its 12-hour shift.

h. Locomotive Fueling/Servicing Procedures and Dwell Times

BNSF accepts WFA/Basin's RTC modeling concerning locomotive fueling/servicing procedures and dwell time.

i. Results of the Additional RTC Simulation

As it did in the prior phase of this case, BNSF agrees that the RTC model used by WFA/Basin is an appropriate and effective simulation model to develop capacity requirements and transit times for the LRR, assuming that the inputs to the model reflect real-world operating conditions. With the exception of the issues discussed in this Part III.C, BNSF accepts the RTC modeling performed by WFA/Basin.

The principal changes relate to interchanges at Northport as discussed above in Section III.C.1 a With respect to interchanges between UP and the SARR at Northport, WFA/Basin's RTC network was modified to make the SARR responsible for picking up empty trains and leaving the loaded train on one of two interchange tracks located at UP milepost 114.43 on UP's South Morrill Subdivision. *See* BNSF TSR workpapers "UPRR northport track chart A.tif" and "UPRR northport track chart B.tif." BNSF also corrected the split of traffic at Northport for trains interchanged between BNSF and the SARR. For the reasons explained in Section III.C.1.a.3 above, RTC modeling should differentiate traffic that goes north over BNSF's Angora Sub to Alliance, and traffic that goes south over the Angora Sub to Sterling. A graphical representation of these changes within the RTC model is in BNSF Third Reply Exhibit III.C-4.[8] Train origins and destinations at Northport were recoded by BNSF to reflect whether the train headed to or came from (a) Alliance or (b) Sterling. *See* BNSF Third Reply Exhibit III.C-5.[9] As

[8] *See* BNSF TSR workpaper "Northport extensions.ppt."

[9] *See* BNSF TSR workpaper "Interchange locations.xls."

explained above, BNSF modified the following dwell times in WFA/Basin's RTC model: 1.5 hours for all loads headed south on BNSF; 1.0 hour for all loads headed north on BNSF; 1.0 hour for all Jeffrey train loads; 1.0 hour for time on the UP interchange tracks at Northport because of the requirements to prepare empty trains; and 0.5 hours for dwell time at Orin for all Moba loads to permit a crew change so that the crews will not outlaw.

BNSF, through its expert David Wheeler, made a number of additional miscellaneous corrections:

1 WFA/Basin's RTC model incorrectly represents the actual elevation at Orin Yard because WFA/Basin code the elevation at milepost 124 the same as milepost 123.1. To correct this error, BNSF modified the elevation to 4,747 ft (from BNSF Orin track charts) for nodes at milepost 124 in WFA/Basin's model

2. WFA/Basin incorrectly code eleven links and/or nodes within the RTC model. Those errors are noted in WFA/Basin's own TSO workpaper "LRR Final5 River.DEBUG" which is a file generated by the RTC model. BNSF corrects each error.[10]

3. WFA/Basin incorrectly code speed limits on nineteen turnouts within the Valley Subdivision. Based on WFA/Basin's TSO workpaper "WFA LARAMIE RIVER STICKS MAY 5.13.08.dwg", the turnouts are #20s which have a maximum permissible speed of 40 mph as

[10] More specifically, the following six diverging links were changed from turnout to crossover track: 5259 – 5260; 5260 – 5259; V131 – VS131; VS131 – V131; ORINMY1 – ORINYARD4S; and ORINYARD4S – ORINMY1. In addition, switch node 1910 has normal alignment node 1905, which may be an invalid link class; switch node VS131 has normal alignment node VS342, which may be an invalid link class SIDING; switch node ORINMY1 has normal alignment node ORINT36, which may be an invalid link class TURNOUT; switch node ORINT36 has normal alignment node ORINMY1, which may be an invalid link class TURNOUT; and switch node ORINT36 has reverse alignment node ORINT30, which may be an invalid link class FOUL.

WFA/Basin correctly code in all other areas of their network. WFA/Basin code these nineteen on the Valley Subdivision as 50 mph. BNSF corrects all nineteen turnouts to 40 mph.

4. As explained in Section III.C.2.d, WFA/Basin incorrectly calculate random failures on the Valley Subdivision, and BNSF employed the same random process used by WFA/Basin and reassigned the two erroneous failures to mileposts MP 18.4 (not 90 5) and MP 84.9 (not 92.4).

5. As also explained in Section III.C.2.d, WFA/Basin incorrectly codes all random failures into the RTC model, and BNSF corrected all of these inaccuracies within WFA/Basin's RTC model

The following table compares WFA/Basin's and BNSF's RTC cycle times:

Table III.C-3
BNSF and WFA/Basin Train Cycle Times (Hours)

Movement	WFA RTC Peak Avg.	BNSF RTC Peak Avg.	Difference
Northport South to Eagle Butte Mine and return	35.1	37 7	2.6
Northport UP to Eagle Butte Mine and return	35.1	39	3.9
Northport South to Buckskin Mine and return	37 5	39.9	2.4
Northport South to Rawhide Mine and return	34 3	38.8	4.5
Northport South to Caballo Mine and return	29.9	34 2	4.3
Northport South to Cordero Mine and return	31.5	32 6	1.1
Northport South to Black Thunder Mine and return	30.7	33.5	2.8
Northport North to Black Thunder Mine and return	30.7	40.6	9.9
Northport South to North Antelope/Rochelle Mine and return	27.8	33.7	5.9
Moba Jct. to Eagle Butte Mine and return	52.8	58.4	5.6
Moba Jct. to Dry Fork Mine and return	46 8	47.5	0.7
Moba Jct. to Caballo Rojo Mine and return	46.5	47.1	0 6
Moba Jct. to Jacobs Ranch Mine and return	47	48.8	1.8
Moba Jct. to Antelope Mine and return	16.1	16 8	0.7
Orin Jct. to Clovis Point Mine and return	19.4	20.3	0.9
Orin Jct. to Cordero Mine and return	18.1	18.2	0.1
Orin Jct. to Jacobs Ranch Mine and return	17 1	14.9	-2.2
Orin Jct. to Antelope Mine and return	14 8	17.1	2.3

3. Rerouted Traffic

For reasons discussed in Sections I and III-A, BNSF believes that WFA/Basin exceeded the limited scope of this reopening by including rerouted traffic in the LRR. Moreover, WFA/Basin's use of rerouted traffic is a blatant attempt to game the Board's MMM methodology for reasons discussed above. However, for purposes of this section of the Narrative, BNSF has assumed the existence of the rerouted traffic and addressed the inadequacies in WFA/Basin's operating assumptions as they relate to the rerouted traffic.

a. Rerouted JEC Traffic

BNSF also objects, for reasons discussed elsewhere, to WFA/Basin's decision to reroute the Jeffrey movement and to handle it as local traffic with an interchange with UP at Northport. The operating issues associated with the new Jeffrey movement are addressed above in this section of the Narrative.

b. Cross-Over Traffic

With the changes discussed above, BNSF accepts WFA/Basin's operating plan with respect to cross-over traffic.

c. Cycle Times for Rerouted Trains

With the changes discussed above, BNSF accepts WFA/Basin's operating plan with respect to cycle times for rerouted trains.

4. Other

a. Fueling of Locomotives

WFA/Basin's operating plan provides that loaded trains are refueled at the Orin Yard and, based on the RTC's routing of trains into Orin Yard, that the refueling can be performed on any track at the Orin Yard.[11] However, WFA/Basin provide for fueling facilities for only two tracks. BNSF has therefore corrected WFA/Basin's operating plan to add fuel trucks that permit refueling of trains on the other tracks.[12]

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[11] WFA has programmed the RTC model to route trains without restriction to certain tracks. The RTC model logic routes the trains through the shortest (fastest) track available that accommodates the length of the inbound train. Directing loaded trains to the two tracks that have stationary fueling equipment would result in delays for other loaded trains entering Orin Yard and increase transit times.

[12] This problem could be addressed by constructing fixed fueling facilities for additional tracks, which would entail additional capital investment, or by requiring trains that require

b. Car Inspections

BNSF accepts WFA/Basin's operating plan with respect to car inspections.

c. Train Control and Communications

BNSF accepts WFA/Basin's operating plan with respect to train control and communications. However, BNSF made modifications to WFA/Basin's signal and communications components as necessary to conform to WFA/Basin's RTC model. Those changes and the associated costs are discussed in Section III.F.6.

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refueling to use one of the two tracks where WFA provides for fixed fueling facilities, which would, among other things, increase dwell times at Orin. BNSF chose the correction that is consistent with WFA's operating plans for trains and with its capital budget.

D. OPERATING EXPENSES

Table III.D-1 below compares WFA/Basin's operating expenses with BNSF's revised operating expenses:

Table III.D-1
LRR 2004 Operating Costs

Description	WFA	BNSF	Difference
Locomotive Ownership	$ 7,816,936	$ 8,680,570	$ 863,634
Locomotive Maintenance	$ 7,544,279	$ 8,366,966	$ 822,687
Locomotive Operations	$ 29,817,794	$ 30,303,135	$ 485,341
Railcar	$ 3,657,005	$ 4,050,027	$ 393,022
Materials & Supply (Operating)	$ 1,091,627	$ 1,093,355	$ 1,728
Train & Engine personnel	$ 17,035,546	$ 18,634,104	$ 1,598,558
Operating Managers	$ 8,518,354	$ 8,922,474	$ 404,119
General & Administrative	$ 10,952,188	$ 10,952,188	$ -
Loss & Damage	$ 33,051	$ 32,771	$ (280)
Ad Valorem Tax	$ 1,953,843	$ 1,953,843	$ -
Maintenance-of-Way	$ 13,441,721	$ 15,942,634	$ 2,500,912
Subtotal	**$ 101,862,345**	**$ 108,932,066**	**$ 7,069,721**
Insurance	$ 3,259,595	$ 3,485,826	$ 226,231
Total	**$ 105,121,941**	**$ 112,417,892**	**$ 7,295,952**

1. Locomotives

BNSF accepts WFA/Basin's analysis of operating expenses for locomotives, except with respect to fuel costs at Orin and increases due to Jeffrey trains traversing an additional 2.6 miles

to complete their interchange with UP. WFA/Basin's calculation of the LRR's annual operating costs for fuel is based, consistent with the Board's prior decision, on the actual cost of fuel at Guernsey, which is where re-fueling of LRR locomotives occurred on WFA/Basin's prior SARR. However, re-fueling for the current SARR takes place in Orin rather than Guernsey Nevertheless, WFA/Basin do not include the added costs associated with transporting that fuel from Guernsey to Orin.

For the reasons explained in BNSF Third Reply Exhibit III.D-1, a conservative estimate of the annual additional fuel transportation costs are $484,425 in the base year. This estimate assumes that BNSF will deliver the fuel to the SARR at Orin at a cost equal to BNSF's internal transportation cost – consistent with the underlying assumption that the SARR's cost of fuel would not be lower than BNSF's internal cost. BNSF Third Reply Exhibit III.D-1 shows that BNSF used information provided in discovery to calculate the average cost per mile of delivering fuel by tank car to Guernsey from the east, and then used that average cost per mile to calculate the extra cost of transporting the fuel an extra 41.6 miles from Guernsey to Orin. This calculation is based on the cost of delivering fuel to Guernsey by tank car because the pipeline that delivers approximately 25% of the fuel delivered to Guernsey does not extend west to Orin.

WFA/Basin also understate the cost of fueling by truck at Orin Yard. WFA/Basin incorrectly assume that the locomotive servicing cost derived from R-1 Annual Report data includes the cost of Direct-to-Locomotive (DTL) fueling. To correct this understatement, BNSF has assigned the Guernsey DTL fuel cost to fuel consumed by loaded trains traveling between Orin Yard and Northport that were fueled by DTL. DTL consumption was derived by multiplying the locomotive unit miles for loaded trains traveling between Orin Yard and

Northport by the percentage of trains in the RTC model that did not get refueled on the tracks with fixed fueling equipment.

2. Railcars

BNSF accepts WFA/Basin's analysis of operating expenses for railcars, except with respect to changes in quantity and maintenance costs due to changes in transit times based on BNSF corrections to the RTC modeling.

a. Leasing

Table III.C-2, located in Section III.C.1.c.(2), compares WFA/Basin and BNSF car requirements by car type.

b. Maintenance

BNSF accepts WFA/Basin's methodology for calculating freight car maintenance. The increase in freight car maintenance expense is mainly attributable to the change in the miles traversed by Jeffrey trains.

3 Personnel

BNSF accepts WFA/Basin's analysis of operating personnel, except with respect to the number of train crews, crew callers, and equipment inspectors as discussed below.

a. Operating

(1) Staffing requirements

(a) Train/switch crew personnel

BNSF has corrected WFA/Basin's train/switch crew personnel to reflect the re-crewing of trains originated on the Campbell Sub and destined for Moba. The methodology employed is discussed in detail in Section III.C.2.g.

(b) Non-train operating personnel

BNSF accepts WFA/Basin's calculations concerning non-train operating personnel, except with respect to equipment inspectors and crew callers. WFA/Basin's operating plan includes ten positions for equipment inspectors and two positions for crew callers that must be staffed 24 hours per day 7 days per week. Standard personnel practices for positions that must be staffed 24/7 dictate 4.2 persons per position, and that figure does not allow for missed time due to vacations, illness, training, or other factors. WFA/Basin's operating plan provides for an insufficient number of equipment inspectors and crew callers to fill these positions 24/7, and BNSF therefore adds two equipment inspectors and two crew callers to the operating plan.

(c) Compensation

BNSF accepts WFA/Basin's compensation rates for operating personnel.

(d) Materials, supplies and equipment

BNSF accepts WFA/Basin's methodology for calculating materials and supplies.

b. Non-Operating

BNSF accepts WFA/Basin's discussion of non-operating expenses.

c. General and Administrative

BNSF accepts WFA/Basin's analysis of general and administrative operating expenses.

4 Maintenance-of-Way

BNSF's maintenance of way expert Gerald G Albin, P E (formerly of TranSystems Corporation and currently with Felsburg Holt & Ullevig) has reviewed WFA/Basin's TSO maintenance of way evidence and has found that WFA/Basin have understated the personnel and equipment necessary for the reconfigured LRR.

In its *September 2007 Decision*, the STB approved $16.0 million in MOW costs to maintain a railroad consisting of 217.95 route miles and 446 75 track miles. The STB further determined that the maintenance of the line to standards necessary for a heavy haul coal railroad would require a maintenance-of-way staff of 111 persons consisting of 14 main office personnel and 97 field workers

In their TSO, WFA/Basin extended the original LRR from Guernsey, WY, to Northport, NE – an additional 92 miles – resulting in a reconfigured LRR consisting of 301.45 route miles and 441.55 track miles. The 5 3 mile reduction in track miles was brought about by eliminating yards and interchanges (and thus the yard and interchange tracks) and constructing the portion of the existing double-track Orin Line (which the LRR had replicated in the earlier SAC case) with a single main track and sidings. As discussed in III.B.2 above, WFA/Basin's track mile count omitted 2.0 miles of passing siding. BNSF's correction of that error results in 443.55 track miles on the reconfigured LRR, making the difference between the track miles on the original LRR and the reconfigured LRR only 3.3 miles

Despite the substantial increase in route miles and virtually identical track miles, WFA/Basin purport to maintain the reconfigured LRR with fewer employees (107 consisting of 15 office personnel and only 92 field staff) and for a significantly lower cost – only $13.4 million. These changes represent a reduction of 5 field MOW personal (a net reduction of 4 total MOW staff) and nearly $2.6 million in MOW costs from the staffing and costs approved by the Board for the LRR as originally designed.

WFA/Basin imply that these reductions reflect the reduced tonnage carried by the redesigned LRR, but they fail to show any such correlation. WFA/Basin TSO Nar. at III-D-16 to 17. As described more fully below, even with the reduction in tonnages, the LRR is a heavy haul

railroad, and as such, it requires a MOW department staffed with a core group of specially trained personnel The staffing approved by the Board in its *September 2007 Decision* represents the minimum optimally required for such a railroad. Thus, the WFA/Basin's proposed reduction of MOW personnel is inconsistent with the Board's Decision

As shown in the table below,[1] reduced personnel costs represent the largest portion – nearly 71% – of the total reduction in MOW costs proposed by WFA/Basin. The remaining 29% of the reduction in costs is attributable to certain contract maintenance activities. These items will be discussed in more detail in the sections below.

[1] Table III.D.4-1 reflects the Board's electronic workpapers underlying its *September 2007 Decision* and differ in the items marked with an * from Table C-5 in the text of the Board's Decision.

Table III.D.4-1

CALCULATION OF SPOT MAINTENANCE				
		STB 2007 DECISION	**WFA/Basin TSO**	**DIFFERENCE**
A	Company Personnel	*$9,669,803 40	$7,861,639 30	$1,838,164 11
B	Equipment	$2,521,512 00	2,521,512 00	$0 00
		*		
C	Contract Work			
1	Track Geometry Testing – 4x year	$71,491 20	$73,045 59	-$1,554 39
2.	Ultrasonic Testing – 4x year	$160,622 63	$160,622 63	$0 00
3	Yard Cleaning	$27,862 87	$27,862 87	$0 00
4	Weed Spray (24' for main, branch)	$21,988 20	$21,988 20	$0 00
5	Weed Spray (16' mine spurs, set out, etc)	$1,883 09	$1,883 09	$0.00
6.	Brush Cutting/Mowing	$45,629 69	$46634.45	-$1,004 76
7	Rail Grinding (includes crossings)	$730,239 28	$282,896 18	$447,343 10
8	Rail Grinding (switches)	$396,831.15	$153,733 19	$243,097 96
9	Equipment Maintenance	$246,559 30	$258,118 55	-$11,559 25
10	Comm Inspections and spot mtc	$189,384 40	$189,384 40	$0 00
11	General Bldg Mtc (WWTP)	$210,053 85	$116,426 97	$93,626 88
12	Snow Removal	$87,630 00	$87,630 00	$0 00
13.	Misc. Engineering	$225,000 00	$225,000 00	$0 00
14	Storm Debris Removal	$25,000.00	$25,000.00	$0 00
15.	Derailments	$750,000 00	$750,000 00	$0.00
16.	Washouts	$40,000 00	$40,000 00	$0 00
17	Environmental Mitigation	$148,422.00	$148,422 00	40 00
18	Noxious Weed Spraying	$310,660 56	$310,660 56	40 00
19	Bridge & Culvert Inspections	$59,296 74	$71,105 44	-$11,808 71
20	Coal Clean-up	*$180,000 00	$180,000 00	$0.00
21	Stabilization (tunnels)	*$167,750.00	$167,750 00	$0 00
	Total Spot Maintenance Costs 2004 in 2005 Dollars	*$16,038,026	$13,441,721	$2,596,304 94

Source STB Electronic Workpaper "STB Spot Maint xls" sheet "Spot Maintenance Summary" and WFA/Basin TSO workpaper "Spot Maint wfa3rdsupp xlsx" sheet "Spot Maintenance Summary"

a. Personnel Requirements

Subsection (1) discusses the inadequacy of WFA/Basin's reduced maintenance-of-way personnel requirements for the reconfigured LRR when compared to the Board's approved staffing for the original, considerably smaller LRR network. Subsection (2) discusses BNSF's proposed staffing of the reconfigured LRR using the Board's staffing as a minimum and developing the additional staff required to maintain the expanded network.

(1) WFA/Basin's LRR MOW forces are inconsistent with the Board's decision and inadequate to maintain the LRR

In their narrative, WFA/Basin state that they started with the LRR MOW plan approved by the Board in the *September 2007 Decision*, WFA/Basin TSO Nar. at III-D-16, but modified it to reflect reduced traffic densities, the extension to Northport, the replacement of second and third main track between Donkey Creek and Fisher Jct. with passing sidings (second main) track, the relocation of the former Guernsey Yard to Orin and the elimination of interchanges with BNSF at Donkey Creek and Campbell. *Id* In fact, however, they started with their own *original* MOW personnel plan, which the STB rejected as inadequate. They boast that their staffing for the reconfigured LRR represents an increase of 36% in specialized field-maintenance personnel over those reflected in their original MOW plan *Id.* at III-D-22. While that may be true, it is nonetheless irrelevant and inconsistent with the Board's Decision.

Table III.D.4-2 compares the Board's approved staffing for the original LRR with WFA/Basin's proposed staffing for the considerably extended LRR. As can be seen, WFA increased the track maintenance personnel by only ONE person (despite its claim to have added a crew) and deviated from the Board's findings with respect to signals, communications and purchasing personnel.

TABLE III.D.4-2

COMPARISON OF STB-APPROVED MOW STAFFING FOR ORIGINAL 217.95 MILE LRR AND WFA TSO STAFFING FOR 301.45 MILE LRR		
Department	STB Decision	WFA/Basin TSO
Track	54	55
Signal	22	20
Communications	10	8
B&B	7	7
Purchasing	3	1
Electrical	1	1
Total Field	**97**	**92**
Main Office Personnel	14	15
Total MOW	**111**	**107**

The subsections below address WFA/Basin's proposed staffing of each department in which it deviates from the Board's approved staffing.

(a) Track department

WFA/Basin correctly recognize that the 92-mile extension of the LRR mainline from Guernsey, WY, to Northport, NE, requires an additional field track-maintenance district at Scottsbluff, NE. However, their claim that they have "added" the necessary personnel to cover that need is disingenuous. As the table below demonstrates, WFA/Basin added only one additional person to the track department. Its sixth 4-man section crew is drawn from the Board-approved 3-man system crew, which WFA/Basin have eliminated entirely.

Table III.D.4-3

Track Department Force		
Position	**STB Decision**	**WFA/Basin TSO**
Managers/Assist Managers	4	4
Track Maintenance Crew Members	20	24
Welding Crew Members	6	6
Track Inspectors	4	4
Machine Operators/Truck Drivers	7	7
Ditching & Spot Surfacing Crew Members	6	6
Mechanics	2	2
Lubricators	2	2
System Crew Members	3	0
Totals	**54**	**55**

Source. STB electronic workpaper "STB Spot Maint xls" sheet "MOW Personnel" and WFA/Basin TSO workpaper "Spot Maint wfa3rdsup xls" sheet "MOW Personnel."

While the Board did not embrace BNSF's theory that work such as ditching, spot surfacing and lubrication could be more efficiently handled by district gangs and seasonal workers, it did accept the use of a 3-man system crew to handle maintenance emergencies. *September 2007 Decision* at 60. WFA/Basin have removed those field personnel entirely, leaving only the regular district-assigned track-maintenance crews to handle routine maintenance, seasonal work (including maintenance of switches and switch heaters) and emergencies requiring immediate attention that may arise anywhere on the network.

Based on his extensive experience with heavy haul coal operations, BNSF expert Mr. Albin continues to hold the view that system gangs are essential to maintaining an efficient heavy haul coal railroad. System crews assist the regular (6) field track-maintenance crews with ditching and spot surfacing, switch maintenance, handling emergency replacements of broken rail or defective ties, assisting signal employees during signal outages, and performing follow up work behind rail detector and track geometry cars. Most important, a system crew is more readily available for handling emergencies and unexpected problems that arise anywhere on the system at any time, day or night. WFA/Basin's creation of a sixth track-maintenance crew

through abolition of the 3-man system crew is inconsistent with the Board's Decision and does not provide for adequate maintenance of the expanded LRR.

In their narrative, WFA/Basin do not specifically address why they eliminated the system crew positions, or even mention that they have done so. They simply assert that they have maintained the 4 manager/assistant manager positions approved by the Board and that their sixth four-man track-maintenance crew is consistent with the four-man crews approved by the Board. As for other track department personnel, WFA/Basin lump them into its discussion of "other specialized field maintenance staff" listed in TSO Table III-D-8, which it asserts is "consistent with the staffing approved by the Board . . . with appropriate revisions to reflect the changes in the LRR traffic density and system configuration." WFA/Basin TSO Nar. at III-D-20. The table includes the following track maintenance positions

- 4 track inspectors
- 6 welding crew members
- 1 ditching foreman
- 1 ditching crew member
- 2 spot surfacing crew foremen
- 2 spot surfacing crew members
- 2 lubricator technicians
- 7 machine operator/truck drivers
- 2 mechanics.

These positions are consistent with the Board's approved staffing. However, the list omits any mention of the system crew members that the Board also approved. WFA/Basin attempt to support their listing of specialized personnel by pointing out that the personnel listed represent an increase of 36% over their *original* MOW plan. They do *not* state that it represents a *reduction* from the Board's approved personnel listing for the original, smaller LRR. In effect they admit that they started *not with the Board's approved staffing*, but with their own *original* MOW plan.

WFA/Basin's original MOW plan did not provide for system crews and indeed they argued against BNSF's inclusion of such crews as unnecessary. Nonetheless, in their rebuttal evidence, WFA/Basin added 3 system crew members to address concerns raised by BNSF about the inadequacies of the WFA/Basin's proposed staffing The Board did not accept WFA/Basin's *original* plan. Rather it accepted a modified version of the parties' evidence, including a three-man system crew, based on WFA/Basin's inclusion of the system crew members in its *revised plan*, which the Board found was a reasonable accommodation to BNSF's concerns. *September 2007 Decision* at 60.

WFA/Basin's elimination of the system crew members goes beyond the scope of the supplemental evidence authorized by the Board. The adjustment is not needed to accommodate the changed configuration of the LRR, but rather is an attempt by WFA/Basin to have the Board revisit its prior approval of a system crew. The Board granted WFA/Basin the opportunity to reconfigure its SARR for the limited purpose of addressing changes that would have been made in the SARR traffic selection and related changes in the configuration of the railroad had WFA/Basin known that the Board would use a new revenue allocation methodology. The Board did not invite the parties to revisit issues already determined.

While WFA/Basin assert that the MOW staffing changes are driven by revised traffic densities and the reconfiguration of the LRR, they made no attempt to demonstrate how those changes justify the elimination of the system crew or any other MOW personnel. In fact, those changes argue against WFA/Basin's staff reductions. The reconfigured LRR extends over a considerably greater geographic area than did the original LRR. The total track miles of the reconfigured LRR are virtually the same as the original LRR, except that a slightly greater percentage of the track miles on the reconfigured LRR are mainline track, requiring higher

maintenance standards. Based on STB workpapers, approximately 86% of the track miles of the original LRR were mainline track, whereas over 90% of the reconfigured LLR track miles are mainline tracks. Thus, there are no grounds for assuming that the reconfiguration of the LRR would lead to reduction of the MOW staff.

WFA/Basin have also failed to demonstrate how the reduced tonnage on the LRR justifies its changes to MOW staffing Despite the lower tonnages, the reconfigured LRR remains a heavy haul railroad. The LRR traffic is comprised exclusively of coal-carrying unit trains averaging more than 100 cars, with each car loaded to 286,000 pounds. Even with a reduction of nearly one-third of the tonnages on most segments, the LRR still averages greater than 50 MGT on its mainline tracks. On the Orin subdivision (134.17 miles), the tonnages range from 35 MGT to 102 MGT with 12 of the 19 segments exceeding 50 MGT. On the Canyon subdivision (41.81 miles) the tonnages range from 82 to 96 MGT and the extended line segment on the Valley subdivision (92 miles) has a density of 82 MGT.[2]

Moreover, although the tonnages on the Orin subdivision ranged from 90 MGT to 154 MGT on the original LRR, those tonnages were spread over multiple tracks, reducing the impact on each individual track. Because the Orin line portion of the redesigned LRR is constructed as single track, the single mainline track carries all empty and loaded train traffic moving over that line. Thus, WFA/Basin's alleged downward "adjustments" to MOW staffing, and particularly track department staffing, based on the revised traffic and configuration of the LRR are wholly unsupported by WFA/Basin's evidence.

[2] WFA/Basin TSO workpaper "Spot Maint wfa3rdsup xls" sheet "Density."

(b) Other departments

As shown in Table III.D.4-2 above, WFA/Basin also eliminated key field personnel in other departments as well. As shown in the table below, WFA/Basin maintained the same number and positions of employees in the Bridges & Buildings and Electrical Departments, but the expanded LRR will have fewer signal and communications personnel and a one-person purchasing department. Table III.D.4-4 below compares the Board's approved staffing for the original LRR with the WFA/Basin proposed staffing for the redesigned LRR in the Signal, Communications and Purchasing departments.

Table III.D.4-4

Comparison STB Decision Staffing and WFA TSO Staffing		
Department/Position	**STB Decision**	**WFA TSO**
Signals Department		
Dispatching Center Technicians	5	5
Signal Tech/Inspectors	2	1
Signal Maintainers	13	12
Signal Foreman	2	2
Total Signal Personnel	**22**	**20**
Communications Department		
Foreman	1	0
Microwave Technicians	3	3
Technicians	2	2
Radio Shop Technician	2	1
Maintainers	2	2
Total Communications Personnel	**10**	**8**
Purchasing Department		
Manager	1	0
Crane Operator	1	.5
Truck Driver	1	.5
Total	**3**	**1**

Source STB Electronic Workpaper "STB Spot Maint Rebuttal xls" sheet "MOW Personnel" and WFA/Basin TSO Workpaper "Spot Maint wfa3rd sup xls" sheet "MOW Personnel"

i) Signals and communications

Without explanation, WFA/Basin eliminated four signals and communications personnel – 1 signal tech/inspector, 1 signal maintainer, 1 communications foreman and 1 radio technician. As with their discussion of track maintenance, WFA/Basin purport to "add" one field supervisor for the signals and communications functions, but their "addition" is in fact merely an increase above their *original* MOW plan, which the Board rejected in its *September 2007 Decision*. The Board held that "WFA ha[d] failed to show that one department composed of signal maintainers could be trained to oversee two broad and important functions of signal and communications maintenance " *September 2007 Decision* at 62. The Board further held that WFA/Basin had not provided sufficient evidence that signal and communications technology were similar enough to overlap and thus held that the two departments (including supervisors) should be separate. Accordingly, the Board approved two signal supervisors[3] as well as a communications foreman.[4]

In their narrative, WFA/Basin pay lip service to the Board's decision, asserting that there will be two signal supervisors, one of whom will also oversee communications. Thus, their revised version of the "MOW Personnel" worksheet includes only the two Board-approved signals supervisors, but eliminates the communications foreman. This is not consistent with the Board's decision and WFA has offered no justification for its position.

WFA/Basin also reduced the number of signal inspectors, signal maintainers, and radio technicians with no explanation. WFA/Basin offers no evidence in its narrative, nor does it point

[3] *See* STB Electronic Workpaper "STB Spot Maint Rebuttal.xls" sheet "MOW Personnel" Cell F22.

[4] *See* STB Electronic Workpaper "STB Spot Maint Rebuttal.xls" sheet "MOW Personnel" Cell F28.

to anything in its workpapers, to support the reduction in these personnel. Because these staffing changes are unsupported, they should be rejected.

ii) Purchasing department

In their original SAC case, WFA/Basin had argued that no employees were needed for a purchasing department because the purchasing function would be handled by the Finance and Accounting department and material-handling would be performed by contractors *September 2007 Decision* at 64-65 (citing WFA/Basin Reb. Nar. at III-D-150). The Board rejected that argument and instead agreed with BNSF that a purchasing department was necessary to handle certain key responsibilities including, among other things, inventory and material handling. *Id.* at 65

Nonetheless, in their TSO evidence, WFA/Basin returned to their original position, although without argument or even notice. As can be seen from Table III.D.4-4 above, and more fully in WFA/Basin's TSO electronic "MOW Personnel" worksheet,[5] WFA/Basin removed the purchasing manager position and combined the crane operator and truck driver positions into a single position, thus reducing the Board-approved Purchasing department to one laborer. The electronic worksheet further shows that WFA/Basin increased their Main Office Personnel – not with the addition of any supervisors, but with the addition of a purchasing *clerk*. In this way, WFA/Basin eliminates the cost for the total compensation (salary, fringe benefits, travel, small tools and office materials) for a purchasing manager { } and a truck driver { } from the Board-approved staffing and replaced them with a clerk { } and crane operator { }. Because there is very little explanation in their narrative, WFA/Basin's narrative

[5] *See* WFA/Basin TSO workpaper "Spot Maint wfa3rdsup.xls" sheet "MOW Personnel" Lines 15 and 41, compared to STB electronic workpaper "STB Spot Maint Rebuttal.xls" sheet "MOW Personnel" Lines 41-43.

leads one to conclude that they have "beefed up" the staffing for the expanded 301-mile LRR, whereas in fact their staffing is still below the staffing approved by the Board for the original 217-mile LRR.

As noted above, WFA/Basin rely on a comparison of their staffing for the reconfigured LRR with their rejected plan for the original LRR as justification for their specialized field forces, noting that their TSO staffing represents an increase above the *original* (rejected) MOW plan. They do not explain why the extension of the railroad by 92 miles – and the maintenance of nearly the same number of track miles as the original LRR but spread over a much greater geographic area with significantly fewer areas of compacted tracks (such as yards and double-tracked segments) – would justify a reduction in specialized field workers, including field supervisors.

To the contrary, the redesign of the LRR compels some minor increases in the work force, as explained more fully in subsection (2) below setting out Mr. Albin's proposed workforce for the LRR.

(2) BNSF's proposed MOW staffing addresses the additional needs of the expanded LRR and is consistent with the Board's decision

BNSF witness Mr. Albin has reviewed WFA/Basin's TSO maintenance-of-way evidence and finds that there is no justification for WFA/Basin's diminished MOW staffing. To the contrary, the expanded LRR would require not only restoration of the Board-approved forces in the Signals, Communications and Purchasing Department, but also a slight increase in Track Department personnel and an additional microwave technician for the 10 additional microwave sites on the new line segment. In addition, as discussed more fully below, WFA/Basin failed to incorporate the STB's decision in its *September 2007 Decision* concerning the appropriate

calculation of AAR units, and therefore WFA/Basin has understated the number of signal maintainers required to service the signal units on the reconfigured LRR. BNSF has recalculated the AAR units consistent with the Board's decision and has added the correct number of signal maintainers to its signal force.

TABLE III.D.4-5

COMPARISON OF STB-APPROVED MOW STAFFING FOR ORIGINAL 217.95 MILE LRR AND WFA TSO STAFFING FOR 301.45 MILE LRR			
Department	STB Decision	WFA/Basin TSO	BNSF TSR
Track	54	55	61
Signal	22	20	25
Communications	10	8	11
B&B	7	7	7
Purchasing	3	1	3
Electrical	1	1	1
Total Field	**97**	**92**	**108**
Main Office Personnel	14	15	14
Total MOW	**111**	**107**	**122**

Source "STB Spot Maint.xls" sheet "MOW Personnel" and WFA "Spot Maint wfa3rdsup xls" sheet "MOW Personnel" and BNSF "Spot Maint BNSF3rdrep xls" sheet "MOW Personnel "

As can be seen from Table III.D.4-5, BNSF proposes to restore the six non-track positions that WFA/Basin eliminated – i.e., signal maintainer, signal inspector, communications foreman, radio technician, purchasing manager and purchasing department truck driver On a heavy haul railroad, such as the LRR, it is essential to have a task force that includes, at a minimum, a full consist of specially trained personnel to ensure coverage 24 hours a day, seven days a week. These include not only the track-maintenance crews, but sufficient numbers of key positions in the other departments as well Any less coverage in any discipline would result in increased risk of down grading in maintenance coverage, leading to slow orders, line outages and, worst case, even derailments. Based on the evidence of the parties, the Board determined

the appropriate staffing for the LRR as originally configured – a 217.95 mile railroad, with 446.75 miles of track, equipped with sophisticated signal and communications systems, and with an infrastructure that included significant numbers of bridges, culverts, overpasses and road crossings.

The reconfigured LRR has 301.45 route miles, 443.55 track miles and increased numbers of bridges, culverts, overpasses and road crossings. Thus, the reconfiguration of the LRR clearly increases the workload for the entire MOW staff. The increased workload requires at a minimum the retention of the MOW staffing at the levels approved by the Board for the 92-mile shorter LRR. As discussed above, the decreased tonnages and removal of double tracking on certain line segments of the LRR do not reduce the maintenance-of-way activities for the basic essential MOW personnel. The removal of yard tracks and double tracking is more than offset by the extension of the mainline to Northport, as the nearly 444 miles of track to be maintained are much more spread out than under the original design.

The reduced tonnages have relatively little effect on the core MOW activities, which are not driven by tonnages (as opposed to contract services such as rail grinding of mainline track and switches which are based on density). Moreover, the effect of the decreased tonnages on the Orin subdivision is diminished by the fact that all tonnages now traverse a single track rather than being spread out over double tracks.

Mr. Albin's proposed additions to the MOW staff are discussed below by department.

(a) Track department

The 92-mile extension of the LRR has a greater impact on the core LRR track-maintenance staff than on other departments. In addition to a sixth four-man section crew, an additional track inspector is needed to cover the new territory. A fifth inspector would maintain

a manageable ratio of route and track miles per inspector. For the original LRR each of the 4 track inspectors covered an average of 54 route miles and 112 track miles. The addition of a fifth inspector for the reconfigured LRR provides a ratio of 60 route miles and 88 track miles per inspector, whereas maintaining only 4 inspectors would drive up the ratio of route miles to 75 route miles per inspector, with each inspector having responsibility for nearly 111 track miles.[6] The expanded network makes it necessary to add another inspector to maintain manageable workloads for the inspectors.

Field Track-Maintenance crews perform the day-to-day track maintenance for a track mile territory of 60 to 100 miles. Their duties include minor alignment and surfacing of the track, minor repair of slow orders, minor drainage repairs, cleaning culverts, repair of broken rail, ties, switch heaters and the like. The Track Inspector inspects the mainline, side tracks, yard tracks, switches, and road crossings on an assigned territory averaging 90 track miles. Inspectors also make additional emergency inspections in response to bad weather conditions or conditions reported by train crews, and other engineering, maintenance and operating personnel. Inspectors do minor repairs such as tightening bolts at switches, but rely on the regular crews to do major repairs to remedy problems identified during inspection.

The expansion of the railroad also compels the availability of an additional machine operator/truck driver to work with spot surfacing and ditching crews on the new territory. Spot surfacing crews are responsible for repairing limited lengths of track or switches for proper surfacing and alignment, primarily to restore track speed to slow orders, line outages and

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[6] In its original plan, BNSF proposed 2-man track inspector patrol gangs to inspect and perform minor repairs. The Board ruled against that plan in favor of 4 track inspectors for the 217.95 mile network and 446.75 track miles. BNSF's revised plan has 5 track inspectors, each covering an average of 60 route miles and approximately 90 track miles, with follow up performed by track-maintenance or system crews. This is consistent with the Board's Decision.

derailment areas. Their work requires the use of tampers (junior tampers and switch tampers) and regulators with a track broom. Ditching crews are responsible for handling large drainage problems, including restoring track ditches filled-in with silt eroded from rains, snow, and wind or from slope failures and sloughing, as well as conducting major culvert cleaning projects and maintaining drainage at bridges. They are equipped with backhoes, front end loaders and dozers. These maintenance-of-way activities require the services of machine operators/truck drivers. Machine operators also assist the system crew that handles emergencies and other work that the field crews cannot do, such follow up work to track geometry and detector cars. In order to cover the extended territory, Mr. Albin added a machine operator/truck drive position as an essential component of the LRR field track-maintenance force.

Welders/grinders perform switch repairs and maintain the CWR. They are responsible for eliminating joints where short rails have been cut in to replace broken rail, or rail found to be defective by rail detector cars and for building-up, welding and grinding switch points, frogs and stock rails. Proper and timely switch maintenance and joint elimination is crucial to the efficient operation of a heavy haul railroad. It is important to increase the number of welders to cover the new territory because much of their time is spent traveling from one priority project to another and the increased 92 mile territory requires an additional person to handle this work. Thus, Mr. Albin included an additional welder/grinder for the new territory. Table III.D 4-6 compares Mr. Albin's proposed track department force with the STB's approved staffing for the original LRR and with WFA/Basin's proposed staffing for the reconfigured LRR

Table III.D.4-6

Track Department Force			
Position	**STB Decision**	**WFA TSO**	**BNSF TSR**
Managers/Assist Managers	4	4	4
Track Maintenance Crew Members	20	24	24
Welding Crew Members	6	6	7
Track Inspectors	4	4	5
Machine Operators/Truck Drivers	7	7	8
Ditching & Spot Surfacing Crew Members	6	6	6
Mechanics	2	2	2
Lubricators	2	2	2
System Crew Members	3	-	3
Totals	**54**	**55**	**61**

(b) Signals department

As discussed above, WFA/Basin have not justified the removal of signal personnel on the expanded LRR. Therefore, as a starting point, BNSF expert Mr Albin restored the two key signal personnel positions that WFA/Basin removed – a signal inspector and a signal maintainer – to bring the MOW signal force back to the level approved by the Board for the much shorter LRR. In addition, BNSF corrected an error in WFA/Basin's calculation of the number of signal maintainers required on the LRR.

In determining the number of signal maintainers needed on the reconfigured LRR, WFA/Basin adhered to the STB's acceptance of a ratio of 1 signal maintainer for every 1239 AAR units, which the STB found was close to BNSF's standard ratio of 1 maintainer/1200 AAR units and therefore feasible. *September 2007 Decision* at 61. WFA/Basin calculated the total AAR units by multiplying the number of each signal item by the number of "AAR units per unit" of that item However, in doing so, WFA/Basin used the "AAR units per unit" that they had submitted in their rebuttal evidence, which were significantly lower than those submitted in their opening evidence and accepted by BNSF. In Appendix D – LRR Road Property Investment to

the Board's *September 2007 Decision*, the Board rejected WFA/Basin's new evidence, stating that "...a party may not impeach its own evidence... [therefore] we use the counts WFA submitted on opening " *September 2007 Decision* at 114. The Board then calculated the AAR units using WFA/Basin's original evidence.

WFA/Basin's use of the rebuttal evidence that the Board clearly rejected in this case is inappropriate. BNSF has determined the total AAR units for the signal road property investment using the correct calculations per the Board's Decision. BNSF has used those same total AAR units and the Board's accepted 1/1200 ratio to determine the appropriate number of signal maintainers, as shown below.[7]

Table III.D.4-7

Comparison of AAR Units and Maintainers Using AAR Units Per Unit in WFA/Basin's Rebuttal Evidence and Using Corrected AAR Unit and Maintainers Per STB *September 2007 Decision* at 114 Appendix D						
	Per WFA Rebuttal			Per STB Decision		
	AAR Units	# Sig. Maint.	Units/ Maint	ARR Units	# Sig. Maint.	Units/ Maint
WFA 3rd Opening	13,775	12	1148	18,360	15	1224
BNSF 3rd Reply	14,008	12	1167	19,001	16	1188

Source WFA/Basin ISO workpaper "Third Supp Open Laramie River CS Spreadsheet Final xls" sheet "AAR Unit Comparison" and BNSF TSR workpaper "Third Reply Laramie River CS Spreadsheet Final xls" sheet "AAR Unit Comparison" Column L.

Thus, based on the signal counts in BNSF's Third Supplemental Reply road property investment, Mr. Albin has included 16 signal maintainers in the MOW field force. Table III-

[7] The Board's decision with respect to appropriate AAR signal units however was inadvertently not carried over to the III.D.4 section of the Board's decision. It is clear, however, that the Board intended that the WFA rebuttal evidence on AAR units per unit not be used. Therefore, despite the Board's failure to recalculate the AAR units for purposes of determining signal maintainers in the *September 2007 Decision*, using the rejected numbers in the parties' supplemental filings would be inconsistent with the Board's intent Therefore, BNSF has included the corrected AAR units in its calculations for both RPI and MOW.

D.4-8 shows BNSF's proposed Signals Department, with the correct number of maintainers based on AAR units consistent with the Board's Decision at 114.

Table III.D.4-8

Comparison of Signal Department Staffing			
Department/Position	**STB Decision**	**WFA TSO**	**BNSF TSR**
Signals Department			
Dispatching Center Technicians	5	5	5
Signal Tech/Inspectors	2	1	2
Signal Maintainers	13	12	16
Signal Foreman	2	2	2
Total Signals Personnel	**22**	**20**	**25**

(c) Communications department

As discussed above, Mr. Albin's personnel count begins with the restoration of the Board-approved levels for the original LRR Thus, Mr Albin restored the positions for communications foreman and radio shop technician. In addition, Mr. Albin included one additional microwave technician to the core Communications department force. Microwave technicians cover maintenance of the long haul microwave network, towers and substations. An additional technician is required because of the expansion of the LRR by 92 route miles and the addition of 10 microwave towers and substations on the new territory to be maintained by the Communications department. The 10 new towers represent an increase of 30%, justifying the addition of a fourth technician.

Table III.D.4-9

Comparison of Microwave Towers and Staff on Original LRR With Microwave Towers and Staff on Reconfigured LRR			
LRR Tower Per STB Decision		**LRR Towers per WFA TSO**	
Height	**No. of Towers**	**Height**	**No. of Towers**
200 ft	3	200 ft	6
100 ft	10	100 ft	12
50 ft	10	50 ft	15
Total	**23**	**Total**	**33**
Technicians	3	Technicians (BNSF)	4
Ratio Tower/Tech	7.6	Ratio Tower/Tech	8.25

While BNSF's proposed communications MOW force of 11 for the reconfigured LRR exceeds WFA/Basin's estimate of 8, it is an increase of only one position over that approved by the Board for the original LRR.

Table III.D.4-10

Communications Department			
Position	**STB Decision**	**WFA TSO**	**BNSF TSR**
Foreman	1	0	1
Microwave Technicians	3	3	4
Communications Technicians	2	2	2
Radio Shop Technician	2	1	2
Maintainers	2	2	2
Total Comm. Personnel	**10**	**8**	**11**

(3) Technical correction to small tools additive per the Board's *February 2008 Decision*

BNSF's MOW Personnel spreadsheet submitted on rebuttal included a small tools additive, which incorporated a percentage for each department based on that department's actual experience. WFA/Basin argued for a 35% across the board additive. In its *September 2007 Decision*, the Board accepted BNSF's additive, but nonetheless mistakenly used WFA/Basin's 35% additive in its restated MOW Personnel spreadsheet. In its *February 2008 Decision*, the Board noted this in the technical corrections. WFA/Basin did not readjust the percentages in

their restated MOW Personnel spreadsheet, but instead hard coded an unexplained amount of $180.669 in Cell J47, which they identified as "BNSF's small tools additive per STB decision 2/29/08." It is unclear how WFA/Basin derived that cost.

BNSF has incorporated the appropriate departmental percentages into the formulas in Column J of its restated MOW Personnel spreadsheet to calculate the correct small tools additive for each personnel position.

b. Equipment

WFA/Basin made no changes to the annual spot maintenance equipment inventory and costs to account for the additional territory, despite their acknowledgment that the expansion of the LRR would require a sixth 4-man section crew. This is not surprising in light of their overall reduced staffing, and their elimination of the systems crew.

Consistent with his assessment of the personnel needs of the expanded LRR, Mr. Albin has reviewed the Board-approved equipment list in "STB Spot Maint Rebuttal.xls" sheet "Annual Spot Equip." As noted above, Mr. Albin increased the track-maintenance force with the addition of a sixth 4-man section crew assigned to the new territory, 1 welder, 1 track inspector and 1 machine operator/truck driver. To provide sufficient equipment for use on the new segment by the new track-maintenance crew and supporting forces, Mr. Albin began with the Board's selection of equipment and equipment cost, to which he then added the following pieces of equipment:

For the new track maintenance crew, one each:

- Hi-Rail Boom Truck
- Rail Drill
- Rail Expander
- Rail Grinder
- Rail Saw

- Rail Heater
- Generator with Tools
- Air Compressor with Tools
- Front End Loader

For the new Track Inspector, one each:

- Hi-Rail Truck, 0.75 ton.

Although BNSF increased the number of signal maintainers, the equipment list approved by the STB has sufficient vehicles to accommodate the additional maintainers and therefore Mr. Albin made no further adjustments.

The cost for these additional pieces of equipment is $140,211. Since the Board's equipment cost of $2,521,512 was hard-coded in the *September 2007 Decision* workpapers, BNSF determined the cost of the additional equipment listed above and added that cost to the Board's cost for a BNSF total spot maintenance equipment cost of $2,661,273.

BNSF's cost development is found in its TSR workpaper "Spot Maint bnsf3rdrep.xls" sheet "Annual Spot Equip "

Mr. Albin also added four radios – two for the new field maintenance crew and one each for the track inspector and the communications technician. These radios have been included in the road property costs under III F.6.

c. Contract Services

Mr Albin has reviewed WFA/Basin's TSO evidence on contract service costs and takes issue with only a few of the items as discussed below.

(1) Track geometry testing

Due to the increase in track miles, the track geometry testing cost increased by $857.53.

(2) Brush cutting/mowing

WFA/Basin's brush cutting and mowing cost has increased above that of the Board's decision, as expected given the increased route miles of the LRR However, WFA/Basin slightly understated the cost for this item because it did not update the miles in its TSO workpaper "WFA THIRD SUPP Track Quantities." BNSF made the necessary correction. Also, BNSF added the Winters siding which also increases this cost.

(3) Communications inspections/spot maintenance

WFA/Basin did not update this item to incorporate the communications cost on the reconfigured LRR, but instead retained the $189,384 cost from the Board's spreadsheet which was 2% of the original communications system cost. WFA/Basin should have calculated 2% of the total communications cost as calculated in their Section III-F-6 TSO workpaper "Third Supp Open Laramie River CS Spreadsheet Final.xls" which would increase the MOW cost for this item by $57,729. BNSF has made the appropriate link in its restated spreadsheet.

(4) Equipment maintenance

In the technical corrections listed in the Board's *February 2008 Decision*, the Board noted that although it had accepted BNSF's maintenance-of-way equipment costs, which included a maintenance of equipment component, in its summary of MOW costs, it also added WFA/Basin's separate maintenance component, resulting in a double count of the equipment maintenance cost. In their TSO spreadsheet, WFA/Basin did not make the correction. BNSF therefore removed the $258,119 for equipment maintenance.

(5) Building maintenance

In his review of the building maintenance costs, Mr. Albin discovered that WFA/Basin made an error in their calculations. The Board agreed with BNSF that 0.5% of the total building and facilities construction costs should be added to MOW costs for building maintenance. As shown in their TSO workpaper "Spot Maint wfa3rdsp.xls" sheet "Unit Cost" Cell B14, instead of including the entire building costs (workpaper "III – F TOTAL wfa3rdsupp.xls" sheet "TOTALS" Cell F105), WFA subtracted the cost of the fueling facilities (Cell F104), before applying the 0.5% additive, resulting in a building maintenance cost of $116,426.97. BNSF calculated the building maintenance expense based on its adjusted total $36.4 million building cost at 0.5%, or $181,777.

d. Conclusion

The Table below compares BNSF's proposed costs with those of the STB and WFA/Basin. BNSF's total MOW costs are $15 9 million and differ from WFA/Basin's costs by $2.5 million BNSF's total MOW costs are still $93,995 less than the STB's costs for the original LRR, despite the addition of personnel and equipment. This is because of the significant drop in rail grinding costs. Rail grinding is tonnage driven and thus the maintenance item most heavily affected by the WFA/Basin's new traffic grouping which reduced tonnages by one-third. In calculating their grinding costs, WFA/Basin used the frequencies approved by the Board, which means that many of the segments with reduced tonnage required less frequent grinding. Although Mr. Albin favors more frequent rail grinding as a preventative measure, he acknowledges that WFA/Basin's grinding costs are consistent with the Board's Decision

Table III.D.4-11

COMPARISON OF STB, WFA AND BNSF SPOT MAINTENANCE				
	STB	WFA	BNSF	Difference WFA v. BNSF
Company Personnel	$9,669,803 10	$7,861,639 29	$10,356,204 38	$2,494,565 08
Equipment	2,521,512 00	2,521,512 00	$2,661,723 00	140,211 00
Contract Work				
Track Geometry Testing	71,491 20	73,045.59	$73,903 13	857 53
Ultrasonic Rail Testing	160,622 63	160,622 63	$160,622 63	0.00
Yard Cleaning	27,862 87	27,862 87	$27,862 87	0 00
Weed Spray (24' mainline)	21,988 20	21,988 20	$21,988 20	0 00
Weed Spray (16' spurs)	1,883 09	1,883 09	$1,883 09	0 00
Brush Cutting/Mowing	45,629 69	46,634 45	47,217.42	583 97
Rail Grinding (incl crossings)	730,239 28	282,896 18	282,896.18	0 00
Rail Grinding (switches)	396,831 15	153,733.19	153,733 19	0 00
Equip Maintenance (5%)	246,559 30	258,118 55	0	-$258,118 55
Communications Inspections/Spot	189,384 00	189,384 40	247,113 67	57,729 26
Building Maintenance	210,053 85	116,426 97	182,057 40	65,630 42
Snow Removal	87,630.00	87 630 00	87,630 00	0 00
Miscellaneous Engineering	225,000 00	225,000 00	225,000 00	0 00
Storm Debris Removal	25,000.00	25,000 00	25,000 00	0 00
Derailments	750,000 00	750,000.00	750,000 00	0 00
Washouts	40,000.00	40,000 00	40,000 00	0 00
Environmental Mitigation	148,422 00	148,422 00	148,422 00	0 00
Noxious Weed Spray	310 330 56	31,066 56	31,066 56	0.00
Bridge & Culvert Inspections	59,296 74	71,105 44	71,957 14	851 70
Coal Clean-up	180,000 00	180,000 00	180,000 00	0 00
Stabilization (Tunnels)	167,750 00	167,750 00	167,750 00	0 00
Total Spot Maintenance 2004 in 2005 dollars	**$16,038,026**	**$13,441,721.42**	**$15,944,031**	**$2,502,309**

Details of BNSF's maintenance of way operating costs are included in BNSF's Third Reply Exhibit III-D.4-1 and in BNSF's Section III.D.4 TSR workpaper "Spot Maint bnsf3rdrep.xls."

5. Leased Facilities

BNSF accepts WFA/Basin's statement regarding leased facilities.

6. Loss and Damage

BNSF accepts WFA/Basin's methodology for calculating loss and damage expenses. However, WFA/Basin's calculation uses incorrect net tons. WFA/Basin uses 62,756,471 net tons in their calculation, but the correct figure is 63,135,509 net tons. BNSF has corrected this mistake in its calculation of loss and damage expenses.

7. Insurance

BNSF agrees with WFA/Basin's methodology for calculating insurance expenses

8. Ad Valorem Tax

BNSF agrees with WFA/Basin's methodology for calculating ad valorem taxes.

E NON-ROAD PROPERTY INVESTMENT

1. Locomotives

BNSF's discussion of SARR costs associated with locomotives is included in Section III.D, *supra.*

2. Railcars

BNSF's discussion of SARR costs associated with railcars is included in Section III D, *supra.*

3. Others

BNSF's discussion of other SARR costs is included in Section III.D, *supra*

F. ROAD PROPERTY INVESTMENT

BNSF's road property investment evidence is sponsored by Cassie M. Gouger, P E. of Felsburg Holt & Ullevig. Ms. Gouger has reviewed WFA/Basin's RPI evidence and has concluded that WFA/Basin have understated the RPI costs for the reconfigured LRR in several areas, as discussed below.

Table III.F-1
Summary of BNSF's Third Reply Estimate of Road Property Investment for the Laramie River Railroad Versus Complainants' TSO Estimate at 4Q2004 Levels

Road Property Investment Account	BNSF 2004 Amount ($Millions)	WFA/Basin 2004 Amount ($Millions)	Difference ($Millions)
III.F.1. Land	$11.0	$11.0	$0.0
III.F.2. Roadbed Preparation	174.8	174.3	0 4
III.F.2. Culverts	16.1	15 7	0 4
III.F.3. Track (Rail, OTM, Ballast)	311.5	309.8	1.6
III F.4. Tunnels	28.6	28 6	0 0
III.F.5. Bridges and Overpasses	75.8	59 0	16.7
III.F.6. Signals and Communications	61.7	59.3	2.4
III.F.7. Buildings and Facilities	36.4	36.1	0.3
III.F.8. Public Improvements	11.4	7.8	3.6
III.F 9 Mobilization/Demobilization	21.6	20.7	0.8
III.F.10. Engineering	71 6	69.1	2.5
Iii-F-11 Contingencies	81.0	78.1	2.9
TOTAL	**$901.5**	**$869.7**	**$31.8**

Source. WFA/Basin TSO workpaper "III - F TOTAL wfa3rdsupp xls" sheet "TOTALS", BNSF Third Reply Exhibit III F-1

In its initial SAC case, WFA/Basin designed the LRR to replicate BNSF's coal-hauling lines within the Powder River Basin in Wyoming. The LRR's route as determined by the Board in its *September 2007 Decision* was 217.95 miles long and extended from Eagle Butte Jct., WY, on the north to Guernsey and Moba Jct., WY, on the south. From Donkey Creek, WY, the LRR mainline proceeded south to East Guernsey, WY, replicating BNSF's Orin and Canyon Subdivisions. This route encompassed the Orin Line originally built in 1979 and improved

throughout the past three decades specifically to handle heavy unit trains of coal. The LRR assumed the traffic levels and all of the essential facilities of a Class I railroad.

In their TSO, WFA/Basin redesigned the LRR by eliminating the portion of the route needed to interchange coal trains with BNSF at Campbell and Donkey Creek, WY, and by extending the LRR 92 miles east from East Guernsey, WY, to Northport, NE. WFA/Basin TSO Nar. at III-B-1. The total constructed route miles for the reconfigured LRR are 301.45 miles. *Id* at III-B-5 and TSO Table III-B-1.

At the same time, WFA/Basin decreased the total track miles of the LRR from 446.75 miles to 441.55 miles for the reconfigured LRR. WFA/Basin TSO Nar. at III-B-7 and TSO Table III-B-2. The reduction in track miles despite extending the route by 92 miles was due to (1) WFA/Basin's construction of the Orin and Reno portions of the LRR as a single line railroad with sidings rather than replicating the existing double track on those segments; (2) the elimination of the LRR's original yards at Donkey Creek and South Logan and replacement of the original Guernsey Yard with a single LRR yard at Orin; and (3) the removal of interchange tracks at Campbell and Donkey Creek. WFA/Basin TSO Nar. at III-B-7 through 12.

As discussed in III.B above, BNSF has accepted WFA/Basin's calculation of the constructed route miles for the reconfigured LRR, but has added 2.5 miles of trackage rights on the UP at the Northport interchange. BNSF has added 2.0 track miles to include the Winters siding on the Valley subdivision. In their RTC model, WFA/Basin assumed the siding existed and relied upon it in directing the LRR trains, but failed to include the siding in their TSO Exhibit III-B-1 and their construction costs. BNSF did not make any changes to yard tracks. The total constructed track miles for the reconfigured LRR are 443.55.

As shown in Table III.F-1 above, and in more detail in BNSF Third Reply Exhibit III.F-1, WFA/Basin has *understated* the reasonable construction costs that would be incurred to construct the reconfigured LRR by $31.8 million.

1. Land

WFA/Basin's land valuation expert developed a land acquisition cost for the new portions of the reconfigured LRR, including microwave tower sites, and adjusted the costs for the original LRR to reflect the reduction of acreage due to the elimination of the Donkey Creek and South Logan yards. WFA/Basin followed the same procedure in valuing the land as approved by the Board. Therefore, BNSF has no objections to WFA/Basin's methodology.

BNSF does not dispute WFA/Basin's land valuation costs per acre.

a. Right-of-Way Acreage

BNSF does not dispute WFA/Basin's right-of-way acreage and land acquisition costs, including WFA/Basin's reduction of the ROW widths between Donkey Creek and Bridger Jct. from 105 feet to the generally accepted 100 feet. As WFA/Basin is no longer replicating the double-tracked Orin Line in that area, BNSF agrees that the 100-foot ROW width is sufficient.

b. Yards

WFA/Basin adjusted the LRR yard acreage to reflect the elimination of the yards at Donkey Creek, South Logan and Guernsey and the addition of a yard at Orin. As discussed in III.B above, BNSF capacity and operating witnesses, Mr. Wheeler and Mr. Mueller, found that WFA/Basin's estimate of track miles for the Orin Yard was sufficient. BNSF Engineering Consultant, Ms. Gouger, added bridges and crossings to the yard layout to accommodate vehicular traffic in the Orin Yard. As discussed in III.B.3, Ms. Gouger added access roads,

including a road to accommodate vehicular traffic adjacent to the car shop tracks. This required an additional 49,570 SF of right of way or 1.14 acre.[1]

None of WFA/Basin's workpapers show the limits of the ROW that they use for the Orin Yard. Therefore, Ms. Gouger used WFA/Basin's Autocad layout of their yard in file "ORIN YARD BASEMAP 5.3.08.dwg" to determine the right of way needed for the yard. She included a buffer of 50 feet from the outermost tracks on the layer "ROW" in the renamed file "ORIN YARD BASEMAP 6.19.08.dwg." Because WFA/Basin designed the yard with yard buildings adjacent to the tracks, BNSF also provided for ROW around the headquarters, crew and other yard offices.

BNSF's estimate of the ROW needed for the Orin Yard is 5,788,146 square feet as opposed to WFA/Basin's estimate of 5,537,864 square feet. This represents an increase of 5.75 acres for the Orin Yard. BNSF accepts WFA/Basin's use of the cost per acre for Bridger/E Bill in WFA/Basin TSO workpaper "STB LRR Land Costs Revised.xls."

c. Microwave Towers

WFA/Basin propose acquiring an additional 30 acres to accommodate 10 additional microwave towers/substations on the new segment between East Guernsey and Northport.[2] Ms. Gouger agrees with that assessment and therefore, BNSF does not dispute WFA/Basin's acreages for the microwave sites nor their assumption of the per-acre value of the microwave site land to be acquired.

BNSF's total land acquisition cost is $10,993,072, only slightly higher than WFA/Basin's cost of $10,986,151.

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[1] *See* BNSF TSR workpapers "TRACK_MILES_WORKSHEET_ BNSF_3rd_Rep.xls" sheet "ORIN YARD" and "STB LRR Land Costs Revised xls."

[2] WFA/Basin TSO workpaper "LRR Land Costs Revised.xls."

2. Roadbed Grading

a. Roadbed Preparation—Clearing and Grubbing

(1) Quantities

BNSF's engineering consultant reviewed WFA/Basin's methodology for determining the roadbed preparation quantities on the new segment of the reconfigured LRR and found the methodology and quantities consistent with those used for the original LRR. Therefore, BNSF accepts WFA/Basin's quantities for clearing and grubbing.

b. Earthwork

(1) Mainline tracks

WFA/Basin adjusted the original LRR earthwork quantities to reflect the new configuration of the LRR. For the new segments, they used the ICC Engineering Reports and the same methodology as approved by the Board. BNSF does not dispute the earthwork quantities for mainline track segments, with the exception that BNSF adjusted the earthwork quantities to include the additional two miles of track for the Winters siding on the Valley subdivision that WFA/Basin failed to construct. This results in an increase of 34,427 CY of earthwork.

(2) Yards and interchange tracks

As discussed in III.F.1 above, while BNSF has not made any adjustments to the Orin Yard tracks, Ms. Gouger has determined that the Orin Yard will need some additional acreage to accommodate the buildings and functions proposed for the yard.

In addition, she has made changes to the yard that flow through to other construction costs. Certain of these changes are necessitated by the fact that there are three drainages that flow through the yard and under the various tracks of the LRR. These three drainages flow into Shawnee Creek directly south of the existing BNSF mainline, which then flows into the North

Platte River. Pictures of each of these drainages are in TSR workpaper "orin_photolog_062008.pdf"

There are three existing bridges on the BNSF mainline in the area WFA/Basin designated as the Orin Yard. Bridges 124.43 and 125.39 clearly cross drainages, while Bridge 124 75 appears to be both a drainage crossing and a vehicular access (when dry). A USGS map of the area shows the three drainages, represented by the blue lines.[3]

These drainages are not replaceable by culverts, as WFA/Basin proposed, for the reasons discussed under III.F.2 c. below. BNSF is currently double tracking the mainline through this area and is constructing on the double track line bridges of comparable overall length as the corresponding bridges on the original track. Therefore, Ms. Gouger has constructed bridges on the tracks of the Orin Yard in the same manner, as discussed more fully in III.F.2.c and III.F.5.b.

As discussed in III.B above, the design of the Orin Yard and the tracks to which WFA/Basin have directed the trains under their RTC Model require that some of the trains be fueled at yard tracks other than those with fixed fueling facilities. BNSF's operating experts have determined that the fueling can be done with fuel trucks. Therefore, the fuel trucks will also need access across these drainages to accommodate the manner in which WFA/Basin have operated trains through the loaded and empty tracks of the Orin Yard in their RTC model. The fuel trucks will need to traverse the entire length of the yard tracks because the 25-foot track centers do not provide adequate space for the trucks to turn around BNSF has drawn a section between two loaded or empty yard tracks depicting the roadway structure that would be needed.[4] The roadway structure would be 11 feet wide with the same length as the railroad bridges.

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[3] BNSF TSR workpaper "USGS Orin WY Waterways.pdf."

[4] BNSF TSR workpaper "Orin Yard Sketches.pdf"

Since there are four loaded and empty tracks, there will need to be two vehicular structures over each of the three drainages in the loaded and empty directions. In addition, there must be an access road on the outside of the loading and empty tracks for general yard access and to fuel locomotives on the outer loaded and empty tracks. This is necessary because if the fuel access roads between the tracks were occupied, there would be no access to the hand throw switches on either end of the yard. The drainage for Bridge 125.39 flows under the tracks in the area of the locomotive shop. Therefore, Ms Gouger has added a vehicular bridge to access the shop. The vehicular bridges are discussed more fully in III.F.5.c.

Other changes to the yard were required to provide vehicular access to buildings and facilities in the yard. Currently there is only one access to the geographic west end of the yard via a private road crossing at MP 126.29. As discussed in III.B.3, Ms Gouger determined that the yard required access from a public highway at both ends of the yard Highway 18 runs along the south side of the proposed Orin Yard and is located 800 to 4,500 feet from the mainline tracks. On the west end, she upgraded road 319, which changes to a private one-lane gravel roadway north of Highway 18, to a 24-foot wide, 860-foot long two-lane roadway with a bridge under the two mainline tracks to provide access to the locomotive shop, fueling tracks, and fueling platform On the east end, she provided a 24-foot wide, 3,250 foot access road just west of the car shop at MP 124.66, with a 102-foot bridge over Shawnee Creek and a 508-foot box culvert at MP 124.66 that goes under 14 tracks and also serves as a replacement for the private crossing.

The details of the vehicular bridges and road crossings are included in BNSF TSR workpapers "LRR Overpasses Costs BNSF 3rd Rep.xls" and "BNSF 3rd Rep Road Crossing Worksheet.xls." The earthwork costs for the yard are included in the yard site costs in III F 7

(3) Unit costs

WFA/Basin used the unit costs approved by the Board, but to account for the additional miles of the LRR extending into Nebraska, adjusted the unit costs that were taken from the Means Handbook for location. BNSF does not object to WFA/Basin's revised location factors.

c. Culverts

(1) Adjustment to culvert lengths and culvert conversions

For the new LRR configuration, WFA/Basin state that they adjusted the lengths of certain of the culverts and eliminated others to reflect the configuration changes. WFA/Basin TSO Nar. at III-F-15. In addition, they converted to culverts three bridges located in the area where WFA/Basin constructed LRR's Orin Yard. BNSF's engineering consultant challenges the conversion of these bridges to culverts.

In SAC cases, it is not uncommon to convert one-span bridges of less than 20 feet to culverts, which is feasible from an engineering perspective and has been accepted by the Board Here, however, the three bridges in the Orin Yard that WFA/Basin propose to convert to culverts are three-span bridges with lengths of 102, 52 and 82 feet. WFA/Basin propose to replace these bridges with only eight foot diameter pipes. In their TSO workpaper "Restated Culvert Quantities and Costs wfa3rdsupp.xls" sheet "SCD Culvert Total Cost" WFA/Basin changed the height of the bridges from those in the BNSF supplied bridge inventory to "10" to accommodate their change.[5]

WFA/Basin did not justify their assumption that these bridges could be converted to culverts. In fact, their own spreadsheet disproves such an assumption. WFA/Basin's

[5] WFA/Basin TSO workpaper "Restated Culvert Quantities and Costs wfa3rdsupp.xls" sheet "SCD Culvert Total Cost" Cells I657, I658 and I662.

spreadsheet in "SCD Culvert Total Cost" includes a column (Column N) that calculates the "CMP Round Pipe Equivalent (inches)" for the box or bridge that WFA proposes to replace with a CMP. In the case of the three bridges in the Orin Yard, WFA/Basin did not apply the formula, but hard coded "96" into Column N.[6] Had WFA/Basin inserted the correct information into the spreadsheet, they would have gotten the following CMP equivalents:

Table III.F-2

Bridge	Actual Length	Actual Height	CMP Equivalent Hard-Coded	CMP Equivalent Formula
124.43	102 ft	18 ft	96"	411"
124.75	52 ft	14 ft	96"	259"
125.39	82 ft	17 ft	96"	358"

Moreover, these three bridges cross over drainages and not dry ditches as WFA/Basin suggest. Ditches are generally defined as small to moderate depressions created to channel water. Drainages refer to the natural or artificial removal of surface and subsurface water from a given area. Although the bridge list produced in discovery notes that the three bridges cross "ditches," WFA/Basin acquired an image as a background for their Orin Yard design that clearly shows that these bridges cross actual drainages. *See* TSO workpaper "ORIN YARD BASEMAP 5.3.08.dwg." These three drainages flow into Shawnee Creek and from there into the North Platte River. The pictures of the three drainages in BNSF TSR workpaper "orin_photolog_062008.pdf" show that bridges 123.43 and 125.39 clearly cross drainages, while Bridge 124.75 appears to be both a drainage crossing and a vehicular access (when dry).

BNSF is currently double tracking the mainline through the area of the proposed LRR Orin Yard. BNSF did not replace these bridges with 96" CMPs, as WFA/Basin propose to do,

[6] *Id* Cells N657, N658 and N662.

but constructed the same overall length and span lengths that exist under the mainline, as shown in the photos in "orin_photolog_062008.pdf." If smaller structures were acceptable for these bridges, it is unlikely that BNSF would have constructed the more expensive bridges. Moreover, a decision to replace these bridges with one or multiple 96" CMPs would require a complete hydrologic and hydraulic analysis to determine if such conversion were feasible or permissible. If the bridges were replaced with 96" CMPs contrary to the findings of a hydraulic analysis, the yard would likely flood in less than the design year storm. BNSF designs their structures so that the 50 year storm does not come in contact with the low chord and the 100 year storm does not overtop the track subgrade, as shown in BNSF's design criteria.[7] As WFA/Basin provided no evidence of an hydrologic/hydraulic analysis to support its assumption that these bridges could be replaced with CMPs, BNSF's recent completed construction of the adjacent mainline with similar structures as the existing bridges is the better evidence of what is needed to cross these drainages Therefore, Ms. Gouger has removed these three culverts from WFA/Basin's culvert quantities and costs and returned the three structures to their original status as bridges, as discussed in III.F.5. below.

(2) Adjustments for number of existing tracks to proposed tracks

In their TSO workpaper "Restated Culvert Quantities and Costs wfa3rdsupp.xls" sheet "SCD Culvert Total Cost," WFA/Basin adjusted the number of tracks per culvert location to conform to the reconfigured LRR. However, BNSF's comparison of the spreadsheet with WFA/Basin TSO Exhibit III-B-1 revealed 22 instances where the spreadsheet did not conform to the exhibit, as shown in the table below.

[7] BNSF TSR workpaper "BNSF Drainage.pdf."

Table III.F-3

Comparison of WFA Proposed Track Changes to Culverts ("SCD Culvert Total Cost") with WFA TSO Exhibit III-B-1			
Culvert No.	**Subdivision**	**# Tracks Proposed**	**# Track TSO Exhibit III-B-1**
5.99	Campbell	0	1
MP 0 62	Orin	1	2
MP 17.19	Orin	1	2
MP 126.40	Orin	2	1
MP 126.48	Orin	2	1
MP 126.57	Orin	2	1
MP 126.66	Orin	2	1
MP 126.79	Orin	2	1
MP 126 86	Orin	2	1
MP 126 90	Orin	2	1
MP 127 01	Orin	2	1
MP 2 39	Reno	1	4
MP 82.52	Valley	2	1
MP 82.53	Valley	2	1
MP 82.70	Valley	2	1
MP 82 81	Valley	2	1
MP 83.40	Valley	2	1
MP 83.70	Valley	2	1
MP 83.70	Valley	2	1
MP 84.08	Valley	2	1
MP 84.45	Valley	2	1
MP 85.15	Valley	2	1

BNSF has corrected the spreadsheet to conform to the track layout in WFA/Basin TSO Exhibit III-B-1.[8]

(3) Omitted culverts

WFA/Basin neglected to include in their culvert inventory the culverts located at MP 90.44, MP 90.57 and MP 90.82 on the Canyon subdivision, even though these culverts were

[8] In BNSF's TSR workpaper "Restated Culvert Quantities and Costs bnsf3rdrep.xls" sheet "SCD Culvert Total Cost," the number of proposed tracks were adjusted in Cells T31, T233, T322, T668 through T675, T680, and T985 through T994.

included in the file "Wyoming culvert list.xls" that was provided to WFA/Basin in discovery. BNSF has added these three culverts to the culvert list in its restated TSR workpaper "Restated Culvert Quantities and Costs bnsf3rdrep.xls" sheet "SCD Culvert Total Cost."

(4) Added culvert

As discussed in III.B.3 above, Ms. Gouger provided vehicular access to the east end of the Orin Yard by means of a 508 LF 14' x 14' box culvert at MP 124.66. The culvert traverses under 14 yard tracks and replaces a private at-grade crossing. As set out more fully in III B 3, the use of a box culvert is the most economical of the possible options for access at the east end of the yard and is consistent with a similar structure used by UP in its Bill Yard. BNSF added this culvert to the culvert list and included the costs in electronic TSR workpaper "Restated Culvert Quantities and Costs bnsf3rdrep.xls" sheet "SCD Culvert Total Cost" (Row 661).

(5) Summary of culvert costs

BNSF's total culvert costs reflect (a) the removal of converted culverts at MP 124 43, MP 124.75 and MP 125.39 on the Orin subdivision from the culvert inventory, (b) correction of the number of tracks on various culverts to conform to WFA/Basin's TSO Exhibit III-B-1, (c) the inclusion of the three omitted culverts on the Canyon subdivision, and (d) the addition of the box culvert for vehicular access to the Orin Yard at MP 124.66.

BNSF's total restated culvert cost is $16.09 million compared to WFA/Basin's cost of $15.73 million.

d. Other

BNSF does not dispute WFA/Basin's quantities or costs of other grading items, including retaining walls, rip rap, utility relocation, seeding/topsoil, water for compaction, road surfacing, environmental mitigation and land for waste quantities.

BNSF's total cost for roadbed preparation is $190.9 million compared to WFA/Basin's cost of $190.1 million.

3. Track Construction

The quantity of each particular track component depends in large part on the total miles of track to be constructed. In its *September 2007 Decision*, the Board approved 217.95 route miles and 446.75 track miles for the original LRR. In their TSO Evidence, WFA/Basin have increased the route miles to 301.45[9] and decreased the track miles to 441.55.[10]

There is only a minor discrepancy between WFA/Basin's estimate of total constructed track miles and BNSF's estimate and that is BNSF's addition of the 2-mile Winters siding, bringing the total track miles to 443.55. There is a slight difference in route miles as the LRR trains stop 2.5 miles short of the point of interchange with UP at Northport, but that can be addressed through trackage rights, and does not affect construction costs.

a. Railheads

In their TSO narrative, WFA/Basin note that they eliminated Guernsey as a railhead for the reconfigured LRR because there was "no way to deliver track materials to this railhead by rail without using a portion of the BNSF track now being replicated by the LRR." WFA/Basin

[9] WFA/Basin TSO Nar. at III-B-5, TSO Table III-B-1.

[10] WFA/Basin TSO Nar. at III-B-7, TSO Table III-B-2.

TSO Nar. at III-F-21. They also relocated the railheads that were formerly at the Donkey Creek Yard and Campbell interchange facilities, which were eliminated, to either side of the 0.49 mile segment of the Black Hills subdivision that the revised LRR now replicates. *Id.* at III-F-21 to 22. An additional railhead was also established at Northport. The substitution of Northport for Guernsey has changed the transportation cost for materials once destined for Guernsey. The distribution of materials between the railheads has also been revised, resulting in changes in the unit costs for materials affected by the changes in railheads [11]

BNSF has no objection to the relocation of railheads or to the redistribution of materials among the railheads.

With the elimination of the Guernsey railhead, WFA/Basin also changed the source of subballast from Guernsey to Granite Canyon. BNSF has no objection to the resourcing of the subballast.

b. Track Quantities

(1) By type of rail

WFA/Basin state in their narrative that they "modified the type of rail used in certain segments to reflect changes in the LRR's density over certain segments." WFA/Basin TSO Nar. at III-F-22 BNSF engineering consultant Ms. Gouger reviewed WFA/Basin's TSO workpaper "TRACK_MILES_WORKSHEET_WFA_3rd_Supp.xls" sheet "Rail Type by Subdivision" and identified several errors in WFA/Basin's designation of the rail type.

[11] *See* WFA/Basin TSO workpaper "WFA THIRD SUPP Location Factor.xls" sheet "Location Factor."

First, WFA/Basin included a curve from the Reno subdivision in the Orin subdivision. Once the curve length in Cell G59 was removed, there was a shift of 0.20 miles from 136-pound premium rail to 136-pound standard rail.

Second, WFA/Basin included the interchange tracks at Northport in the 115-pound category, but according to the specifications set out in their narrative at III-B-9, the interchange tracks at Northport were to be constructed with 136-pound standard CWR.

Third, the interchange connections to the Angora subdivision are in curves greater than 3 degrees, but are not included in WFA/Basin's electronic file "WFA THIRD SUPP Curve Data Worksheet.xls." WFA/Basin constructed the segment between MP 0 0 and MP 0.4 with 115-pound rail, but neglected to take into account that this curve is 5 degrees 48 minutes which would require 136-pound premium rail and the installation of a rail lubricator. For the south Angora connection, no information was available, but it is fair to assume that the curve there would be the same as for the north connection – 5 degrees 48 minutes – and would also require a rail lubricator.

BNSF has made the necessary corrections in its reply workpapers to reflect the correct rail types for these various segments and to include the two additional rail lubricators.

(2) By number of tracks

In its *September 2007 Decision*, the Board noted that WFA/Basin's method of grouping track lengths had resulted in an overcount of track lengths, which lead to a miscalculation of ballast quantities. Specifically, the Board found that

> WFA initially classified the lengths of some tracks as both parallel main lines or by track function, which resulted in an overcount of track lengths. WFA reclassified the tracks so that no track was

> double counted, but in doing so, placed some of the tracks in the wrong class and omitted some track.[12]

In correcting WFA/Basin's error, the Board designated the track by function, separating set-out, helper, MOW and interchange tracks from mainline and siding tracks. The STB's methodology follows the design criteria, i.e., the subballast and ballast depth for the type of track. In their TSO workpapers, WFA/Basin ignored the STB's methodology and included set-out and helper tracks in classifying track segments as One Track, Two Tracks, Three Tracks or Four Tracks. This necessitates backing out the set-out and helper tracks when using mainline track lengths to calculate quantities of track construction items.

BNSF engineering consultant Ms. Gouger revised the spreadsheets in WFA/Basin's electronic file "TRACK_MILES_WORKSHEET_WFA_3rd_Supp.xls" to be consistent with the STB's methodology. Specifically, she removed from the sheets labeled "Two Tracks," "Three Tracks" and "Four Tracks" any lengths included for set-out and helper tracks. She then reclassified the remaining tracks accordingly. For example, if there was a single mainline track with a one-mile helper track, WFA/Basin classified the one mile of the mainline track and the helper track as a Two Track segment. Ms. Gouger removed the one-mile of helper track and reclassified the one mile of mainline track as One Track. As a result, on the sheet labeled "Route & Track Miles Summary," the columns labeled "1 Track" "2 Track" "3 Track" and "4 Track," which are linked to the "One Track" "Two Tracks" "Three Tracks" and "Four Tracks" sheets, now reflect the mainline and siding tracks without set-out and helper tracks. This reclassification more accurately reflects the mainline miles by number of tracks and allows the correct mainline miles to flow through other spreadsheets without having to manually back out the set-out and

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[12] *September 2007 Decision* at 92, n.326.

helper tracks. Ms. Gouger also corrected the sheet labeled "Track Mileage Chart" to include the set-out, MOW, and helper tracks under the column "Other Track."

Finally, the total on the "Three Tracks" sheet did not include the tracks on the Valley subdivision. Therefore, Ms. Gouger corrected Cell F33 to include those lengths.

(3) Quantities of relay rail

In their TSO workpaper "WFA THIRD SUPP Track Quantities.xls" sheet "Track Quantities," WFA/Basin failed to double the miles of 115-pound relay track and mine spurs in Cell 37 as required to obtain the quantity of 115-pound relay rail that WFA/Basin rely on to develop the associated other track material ("OTM") quantities. Correcting this error did not affect the quantity of 115-pound rail, but increased the associated quantities of Grade 3 wood ties, plates, spikes, anchors and field welds. This is because WFA/Basin link their track quantities to Cell 37 and then divide by two. Because the total in Cell 37 accounted for only half of the rail, the formula caused an undercount of the other track quantities. Ms. Gouger has corrected Cell 37, which then flowed through to the other quantities.

(4) Omitted track

As discussed in III.B.2 above, WFA/Basin included the Winters siding on the Valley subdivision between MP 23.9 and MP 25.9 in their RTC model, but failed to include it on their TSO Exhibit III-B-1 and therefore, failed to construct the 2 mile segment of track. BNSF has added this segment to its track-mile count, which results in an increase in rail and OTM, turnouts, and propane tanks. These changes are reflected in BNSF's III-F-Total TSR workpaper "III – F TOTAL bnsf3rdrep.xls "

c. Ballast and Subballast

WFA/Basin have overstated ballast and subballast quantities as a result of several errors in their calculation of mainline miles of track. First, as discussed in Section III.F.3.b (2) above, WFA/Basin's method of grouping track lengths results in an overcount of mainline track lengths. While in some spreadsheets WFA/Basin correctly backed out the set-out and helper tracks from their mainline track-mile counts, they neglected to do so in their calculation of the quantities of ballast and subballast for mainline tracks.

Second, in their TSO workpaper "Ballast & subballast Worksheet wfa3rdsupp.xls," WFA/Basin neglected to subtract curve miles from the tangent mainline miles, which further overstates the quantities of mainline track upon which the ballast and subballast calculations are based. Third, WFA/Basin neglected to add the yard tracks in their calculation of ballast and subballast.

The corrections to the spreadsheets in WFA/Basin's electronic files "TRACK_MILES_WORKSHEET_WFA_3rd_Supp.xls" and "Ballast & subballast Worksheet wfa3rdsupp.xls" resulted in the changes in ballast and subballast quantities and costs shown in the table below.

Table III.F-4

Ballast and Subballast Calculations			
	WFA TSO Net Ton	**BNSF TSR Net Ton**	**Difference Net Ton**
Quantities			
Ballast	1,336,517	1,293,793	-42,724
Subballast	3,906,988	3,731,111	-175,877
Total Quantities	5,243,505	5,024,904	-218,601
Costs	$		
Ballast	$22,402,740	$21,857,587	-$545,153
Subballast	$40,786,651	$39,443,670	-$1,342,981
Total Costs	**$63,189,391**	**$61,301,257**	**-$1,888,134**

d. Other Track Materials

BNSF's addition of two track miles flows through to the other track materials, including wood ties, anchors, and spikes. BNSF also corrected WFA/Basin's incorrect classification of two switches, which affects OTM as well. WFA/Basin constructed the two switches at the helper pocket on the Valley subdivision as premium hand throw switches, as shown in WFA/Basin TSO workpaper "WFA THIRD SUPP Track Quantities xls" sheet "WFATurnouts" Cells J174 and J175. The two switches should be included in the premium electric switches (Column L). This change flows through to the switch stands, switch heaters, generators and propane tanks. BNSF added one 35KW generator for the two switches.

c. Track Labor and Equipment

WFA/Basin constructed the set-out, MOW and helper tracks to mainline standards as noted in Cell B71 of WFA/Basin's TSO workpaper "III-F TOTAL wfa3rdsupp.xls" sheet "TOTALS." However, their testimony states that these tracks will be built with 115-pound relay rail (TSO Nar. at III-B-11) with wood ties spaced at 24" on 8" of ballast and 6" of subballast (Cells B71 and B72). Since the costs associated with installing tracks to these standards differ from the costs associated with installing mainline tracks, BNSF has removed the lengths of set-out and helper tracks from the quantity of tracks to be constructed according to mainline track specifications (Cell D46) and constructed them according to the specifications in Cells B71 and B72 using the costs in Cells E71 and E72.

WFA/Basin also neglected to include interchange or mine leads in their track construction costs. BNSF has added these miles to the quantities for installation of mainline single track with wood ties at 20.5" C-C and 8" ballast in Cell D46 and mainline single track 12" subballast in Cell D58.

BNSF's total cost for track materials and track construction is $311.5 million compared to WFA/Basin's cost of $309.8 million.

4 Tunnels

WFA/Basin accepted the Board's cost for tunnels.

5. Bridges

a. Bridge Types

In their TSO narrative, WFA/Basin state that they used the methodology for the type and size of bridges that the Board approved in its *September 2007 Decision* (WFA/Basin TSO Nar. at III-F-23), but in fact WFA/Basin departed from the approved methodology for determining the type of bridge. In their original submission, WFA/Basin took the largest span from each bridge description and used that span to determine the appropriate bridge type. In their TSO evidence, for certain of the new bridges on the Valley subdivision, they shortened the longest span in order to classify the bridge as a less expensive type. For example, Bridge 50.14 over the Tri-State Canal is currently a three-span bridge described as "60' DPG, 2-16' CPT." This bridge should be typed according to the longest span – i.e., the 60 foot span – and thus would be constructed with two 60-foot spans, making this a Type 3 bridge. In their TSO evidence, however, WFA/Basin listed the proposed maximum span as 33' and constructed the bridge with three spans of 33 feet each, thus redesignating this bridge as a Type 2 bridge.[13] BNSF has corrected the bridge list to reflect the appropriate maximum span and bridge type on bridges 50.14, 26.57, 23.77 and 6.06 on the Valley subdivision.

[13] WFA/Basin TSO workpaper "LRR Bridge Costs WFA 3rd Supp.xls" sheet "Bridge List."

b. Corrections to Bridge Inventory

In their bridge inventory, WFA/Basin added a number of bridges on the Valley subdivision that correspond to the new line segment of the reconfigured LRR. Ms. Gouger reviewed WFA/Basin's bridge inventory and determined that WFA/Basin had neglected to include Bridge 63.56 from the BNSF inventory list of bridges on the Valley subdivision BNSF corrected the bridge inventory to include that bridge.

Ms. Gouger also checked the number of proposed tracks indicated on WFA/Basin's bridge list against WFA/Basin's reconfiguration of the LRR and found two errors:

- Bridge 78.86 on the Valley subdivision has 1 track listed on the inventory, whereas WFA/Basin constructed two tracks;
- Bridge 70.62 on the Valley subdivision has 2 tracks listed on the inventory, whereas WFA/Basin constructed only one track.

Ms. Gouger made the corrections to the inventory in BNSF's TSR workpaper "LRR Bridge Costs BNSF 3rd Rep xls" sheet "Bridge List."

As discussed above in III.F.2.c, WFA/Basin converted three bridges on the Orin subdivision (bridges 125.39, 124.75 and 124.43) to 96" CMP culverts. WFA/Basin justify this change by noting these bridges spanned "ditches." WFA/Basin TSO Nar. at III-F-24. In fact, the three bridges in the area designated for the Orin Yard span three major drainages for which a culvert is inadequate. The existing bridges have lengths far exceeding the less-than-20' bridge lengths that are typically converted to culverts in SAC cases. These bridges have lengths of 82', 52' and 102' respectively. Their current heights are 17', 14' and 18', respectively. These bridges are of significantly greater size than those that could be replaced by the proposed 96" (8') culverts.

WFA/Basin's proposed layout for the Orin Yard includes 20 tracks, all of which must cross over one or more of the drainage ditches. At the location of Bridge 125.39, the yard will

have 20 tracks; at Bridge 124.75 it will have 17 tracks and at Bridge 124.43 there will be 14 tracks. Therefore, BNSF has added these three bridges back into the bridge inventory and designated the appropriate number of tracks for each bridge location.

As discussed in III.B.3, BNSF added access roads to the Orin Yard from public roads to provide access to the north and south sides of the yard. Where the access road crosses the two mainline tracks at MP 126.29, BNSF constructed a grade separation with a bridge under the two mainline tracks to allow for a two-lane roadway access to the yard near the locomotive shop, fueling tracks and fueling platform. These bridges are included in BNSF's bridge costs The other grade separated crossing at MP 124.66 has been constructed with a box culvert as previously discussed in III.F.2.c above.

The addition of Bridge 63.56, and the inclusion of the bridges in the Orin Yard brings the total number of bridges on the reconfigured LRR to 182, an increase of 54 bridges from WFA/Basin's total of 128 bridges The table below compares BNSF's bridge counts and costs with those approved by the STB in its *September 2007 Decision* and with those in WFA/Basin's bridge list.

Table III.F-5

Comparison of Bridge Counts and Costs			
Bridge Quantities	**STB Decision**	**WFA TSO**	**BNSF TSR**
Type 1	20	43	78
Type 2	35	47	51
Type 3	18	18	33
Type 4	27	20	20
Total No. Bridges	100	128	182
Total Cost	**$48.5 M**	**$45.6 M**	**$60.1 M**

Sources WFA/Basin TSO workpaper "LRR Bridge Cost WFA 3rd Supp xls" sheet "Bridge List", BNSF TSR workpaper "LRR Bridge Costs BNSF 3rd Rep xls" sheet "Bridge List "

c. Highway Overpasses

WFA/Basin added one overpass on the new segment and adjusted the lengths of other overpasses. BNSF does not dispute WFA/Basin's quantities and costs for those overpasses.

As discussed in III.F.2 and III.F.5 above, BNSF has redesigned the Orin Yard with respect to vehicular structures to cross drainages in the Orin Yard Specifically, because WFA/Basin's RTC model does not direct all trains that need to be refueled to the tracks with fixed fueling facilities, fuel trucks are needed to fuel the locomotives directed to other yard tracks. These fuel trucks will need access across the drainages at the locations of Bridges 124.43, 124.75 and 125.39. Since there are four loaded and empty tracks, two vehicular structures are required over each of the three drainages in the loaded and empty directions, as shown in the sketch in BNSF's TSR workpaper "Orin Yard Sketches pdf." BNSF is also adding an access road on the outside of the loading and empty tracks for general yard access and to fuel locomotives on the outer loaded and empty tracks. The drainage for Bridge 125.39 also flows under the area of the tracks for the locomotive shop, thus requiring an additional vehicular structure for access to the shop. The table below shows the number and location of vehicular structures needed to cross the drainages.

Table III.F.-6

Vehicular Structures in Orin Yard				
Bridge	Length	No. Vehicular	SF	Location
124.43	102	6	6,732	4 for fuel, 2 out
124.75	52	6	3,432	4 for fuel, 2 out
125.39	82	7	6,314	4 for fuel, 2 out
				1 loco shop

BNSF also added a roadway bridge crossing Shawnee Creek on the access road on the east side of Orin Yard at MP 124.00. The roadway overpass is 102 feet long, similar to the bridge across the drainage at BNSF bridge 124.43.

BNSF used the SF cost of a vehicular bridge of $118.14 from the "LRR Overpasses Costs WFA 3rd Supp.xls" sheet "OVERPASS UNIT COST" Cell H15 to develop the costs for these overpasses. The costs have been added to "LRR Overpasses Costs BNSF 3rd Rep.xls."

BNSF's total cost for bridges and overpasses is $75.8 million compared to WFA/Basin's cost of $59.3 million.

6. Signals and Communications

WFA/Basin made various changes to the signal and communications components of the reconfigured LRR. Ms. Gouger reviewed WFA/Basin's spreadsheet in "Third Supp Open Laramie River CS Spreadsheet Final.xls" and found several places where the counts on sheet "Locations & Counts" did not match with WFA/Basin's TSO Exhibit III-B-1. In addition, although WFA/Basin stated in their narrative that the three helper pocket tracks were being constructed as power switches (WFA/Basin TSO Nar. at III-B-13), they did not include them as such in the signal costs. Accordingly, Ms. Gouger made the following corrections and additions to the "Locations & Counts" spreadsheet:

- Section A
  - CP A 3 – WFA only included one interlocking hut for one crossover, but included three power switches. This control point covers the power switch at MP 3.02 for Clovis Mine and the adjacent crossover. Therefore BNSF has added an interlocking hut for one switch.
  - CP A 8 – This control point covers two switches at MP 7.60 (siding) and 7.90 (access to Dry Fork Mine). WFA includes these two power switches, but only includes an interlocking hut for one switch. BNSF has changed this to an interlocking hut for 2 switches.

- CP A 9 – This control point covers three switches at MP 9.15 (end of siding), at MP 9.41 (access to Buckskin mine), and at MP 9.45 (access to Rawhide Mine). WFA includes the three power switches but only constructs two single switch interlocking huts. BNSF changed this to three single interlocking huts.

- Section B
  - EL C 587 – For the helper pocket tracks between MP 587.25 and MP 587.55 on the Black Hills subdivision, WFA basin included only manual switch machines, but to be consistent with WFA/Basin's specifications, this should be powered. BNSF changed the manual switches to a 2 switch interlocking hut, 4 signals and 2 power switch machines

- Section C
  - EL C 7 - The set-out tracks at EL C 7 do not have any manual switch machines or batteries included. BNSF has added the switches and batteries.

  - CP C 10 – For one crossover and one siding switch (MP 10.00). WFA includes an interlocking hut for 2 crossovers and for 5 power switches. BNSF edited to provide for three power switches and adjusted the interlocking huts.

  - CP C 14 – For one crossover, WFA constructed an additional single interlocking hut, which BNSF removed.

  - CP C 15 – For the helper pocket tracks between MP 15.40 and MP 15.52 on the Orin subdivision, BNSF added a 2 switch interlocking hut, 2 signals and 2 power switch machines.

  - CP C 15 – For one crossover and a switch to Caballo, WFA constructed only the interlocking hut for the crossover. BNSF added a hut for the Caballo switch.

  - CP C 65 - WFA did not include the switch to the Antelope Mine at MP 65.27. BNSF added the interlocking hut and power switch

- Section D
  - EL D 127 - The set-out tracks at EL D 127 are constructed for singles instead of the doubles that are shown on WFA/Basin's TSO Exhibit III-B-1. BNSF has made the necessary change.

- Section E
  - CP E 0 – For the helper pocket tracks between MP 0 56 and MP 0.67 on the Valley subdivision, WFA/Basin constructed the 2 switches as premium

hand throw whereas they should have been premium electric. BNSF added a 2 switch interlocking hut, 2 signals and 2 power switches.

- WFA/Basin did not include a signal for the UP interchange Switch. BNSF has added a single switch interlocking hut, signals and power switch to CP E O.

- CP E 23 – BNSF added this control point to accommodate one end of the Winters siding that BNSF added based on WFA/Basin's RTC model. A single switch interlocking hut, signals, switch and associated materials were added.

- CP E 25 – BNSF added this control point for the other end of the Winters siding. The same material was added as for CP E 23.

- FED E 25 – BNSF changed the FED from a single to a double because the FED at MP 25.0 is now within the siding at Winters

o Section F

- EL F 232 and EL F 228 – WFA/Basin included two electric locks at the set-out tracks at EL F 232 and at EL F 228 instead of the one per set-out track that is needed. BNSF removed one electric lock from each location.

- CP F 220 – WFA/Basin built CP F 220 with two switches instead of the one that is shown in WFA/Basin TSO Exhibit III-B-1. BNSF edited the interlocking hut and power switch quantity to provide the necessary coverage.

BNSF accepts WFA/Basin's communications system, but adds in the additional four radios that will be required by the BNSF's proposed increased MOW personnel, as discussed in III.D.4.

These corrections result in a total BNSF cost for signals and communications of $61.7 million, compared to WFA/Basin's cost of $59.3 million.

7. Buildings and Facilities

WFA/Basin made minor changes to the buildings and facilities to conform to the reconfiguration of the LRR, which primarily involved changes in the size and number of waste water treatment plants given the elimination of all but one yard and the addition of another

MOW crew building at Northport. BNSF's operating and engineering consultants reviewed these changes and concluded that the changes were appropriate. The only difference between BNSF's buildings and facilities costs in its third reply and WFA/Basin's costs are the yard site costs associated with the Orin Yard. These include the two public access roads that BNSF added to Orin Yard: the 860 LF of roadway needed to access the west end of the yard, and the 3,250 LF of roadway for the east end.

As discussed in III.B.2 and III.F.2.b.(2), to provide access to the yard from Highway 18, BNSF upgraded road 319 to an 860-foot two-lane roadway with a bridge under the two mainline tracks to provide vehicular access to the locomotive shop, fueling tracks and fueling platform. On the east end, a 3,250-foot access road was constructed just west of the car shop at MP 124.66, with a 102-foot bridge over Shawnee Creek[14] and a 508-foot box culvert[15] at MP 124.66 that goes under 14 tracks, and replaces a private crossing. BNSF applied the unit cost that WFA/Basin used for other yard road costs to these two 24-foot wide roadways.[16]

BNSF's total cost for buildings and facilities is $36.4 million compared to WFA/Basin's cost of $36.1 million.

8. Public Improvements

a. Fencing

BNSF accepts WFA/Basin's right of way fence and snow fence quantities and costs

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[14] The cost of the roadway bridge over Shawnee Creek was developed using the unit cost for overpasses and is included in the bridge and overpass costs

[15] The cost of the box culvert at MP 124.66 is included in the culvert costs.

[16] BNSF TSR workpaper "BNSF THIRD REP Building Site Development Costs.xls" sheet "Yard Lights Drainage Roads" Rows 63 and 64

b. At-Grade Crossings

WFA/Basin included 306 at-grade crossings (11,016 LF) in its spreadsheet "WFA 3rd Supp Road Crossing Worksheet Rebuttal.xls." BNSF has added an additional crossing, which is located at MP 24.920 on the Valley subdivision on the Winters siding that WFA failed to construct.

In addition, to accommodate the fuel trucks' access to the area between yard tracks, as discussed in III.F.2 and III.F.5 above, crossing material is required along the lead tracks in the Orin Yard, as shown in BNSF TSR workpaper "Orin Yard Sketches.pdf." As the sketch shows, eight crossings are required. Therefore, BNSF has added the cost for the crossing material for eight 36-foot crossings, or 288 LF of crossings in TSR workpaper "BNSF 3rd Rep Road Crossing Worksheet.xls" Line 290.

The STB in its *September 2007 Decision* added two crossings on the Black Hills subdivision and two crossings on the Valley subdivision near Guernsey. In their TSO, WFA/Basin included the two crossings on the Black Hills subdivision at MP 586.09 and MP 589.10, but neglected to add the two crossings on the Valley subdivision at MP 91.47 and 91.85. BNSF has added these to its at-grade crossing list.

WFA/Basin's cost for at-grade crossings – $99,156.24 – is significantly understated due to a technical error in WFA/Basin's III-F-Total worksheet. WFA/Basin multiplied the unit cost per LF ($324.04) by the number of grade crossings (306) instead of the LF of crossings (11,016) which would have been $3,569,625. BNSF's cost for 11,412 LF of at-grade crossings is $3,697,944.

c. Signs and Road Crossing Devices

WFA/Basin claim to include the same Board-approved package of signs for the reconfigured LRR, except for revisions to quantities to accommodate the changes to LRR's route and track miles However, in their TSO workpaper "III-F TOTAL wfa3rdsupp.xls" sheet "Signs," WFA/Basin failed to include milepost signs for any of the double track on the entire network. BNSF has added the additional signs based on the track configuration.

WFA/Basin erred in calculating the quantity of advance warning and station signs as well. Cell D113 in WFA/Basin's TSO workpaper "III-F TOTAL wfa3rdsupp.xls" sheet "TOTALS" was linked only to the advance warning signs and omitted the station signs completely. In addition, WFA/Basin overlooked one advance warning sign at MP 0.4 on the Valley subdivision.

The station sign count in WFA/Basin's "Signs" worksheet was also incorrect. WFA/Basin failed to include any of the station signs for the Valley subdivision. BNSF used the track charts to identify 21 station signs on that subdivision. BNSF also adjusted the station signs on the Black Hills subdivision. After making these corrections, BNSF's total quantity of advanced warning and station signs is 166 compared to WFA/Basin's total of 75.

WFA/Basin also linked Cell D112 in the "TOTALS" spreadsheet to the incorrect signs for "FRA SIGNS." In the STB's Decision, the YARD LIMIT SIGNS & FRA SIGNS referred to yard limit signs ("Signs" Cell C48) plus the road crossings that have crossbucks ("TOTALS" Cell D109). WFA/Basin incorrectly linked Cell D112 to "Signs" Cell E38 (speed change signs) and Cell C48 (yard limits) and thus included the two yard limit signs plus 25 speed signs that were already included in the advance warning signs in Cell D113. BNSF corrected the link to include the two yard limit signs plus the road crossings that have crossbucks (Cell D109)

The table below summarizes the differences between the parties' sign quantities.

Table III.F-7

Comparison of BNSF and WFA Signs		
Type of Sign	**WFA TSO Quantity**	**BNSF TSR Quantity**
Mile Post Sign – 1 number	25	58
Mile Post Sign – 2 numbers	191	232
Mile Post Sign – 3 numbers	84	108
Cross Bucks	204	204
Whistle Post Signs	612	614
Flanger Signs	377	379
Yard Limit & FRA Signs	27	206
Advance Warning & Station Signs	75	166
Posts	1595	1967

d. Unit Costs

WFA/Basin's unit costs for signs differed from the costs that were approved by the Board in its *September 2007 Decision*. Ms. Gouger reviewed WFA/Basin's worksheet "III-F TOTAL wfa3rdsupp.xls" sheet "Material Unit Cost" and discovered that WFA/Basin did not replicate the historical factors that the Board had applied to the sign unit costs. The sign costs and post costs were from different years and therefore the STB applied a different historical index to each. WFA/Basin applied the same historical factor to both the signs and the posts. BNSF corrected this error.

BNSF's total costs for public improvements, including fencing, grade crossings, cattle guards and signs, is $11.4 million compared to WFA/Basin's cost of $7.8 million

9. Mobilization

WFA/Basin applied the Board-approved 3.5 percent mobilization additive except for land acquisition costs and track labor. BNSF accepts that methodology. BNSF's mobilization cost is $21.6 million compared to WFA/Basin's cost of $20.7 million.

10. Engineering

WFA/Basin applied the Board-approved 10 percent additive for engineering, excluding land acquisition and mobilization. BNSF used the same additive in its reply. BNSF's engineering costs are $71.6 million compared to WFA/Basin's cost of $69.1 million.

11. Contingencies

WFA/Basin applied the Board-approved 10 percent additive for contingencies, excluding land costs. BNSF used the same additive in its reply. BNSF's contingency cost is $81.0 million compared to WFA/Basin's cost of $78.1 million.

12. Conclusion

As shown in Table III.F.-1 above and in BNSF Third Reply Exhibit III.F-1, BNSF's total road property investment costs for the reconfigured LRR is $901,461,775 compared to WFA/Basin's cost of $869,693,763.

G. DISCOUNTED CASH FLOW ANALYSIS

The only issue raised in this supplemental evidence regarding the application of the Board's discounted cash flow model involves the proper assumptions for the cost of capital that is used as the discount rate. BNSF's position on this issue is that the Board should make no changes to its prior cost of capital calculations and it should make no change to its existing methodology for assessing the SARR's future cost of capital in this proceeding, which assumes that the future years' cost of capital will be based on an average of the actual historical years' cost of capital. The grounds for BNSF's position involve principally legal and policy issues, and therefore BNSF's position is set out in full in Section I – Counsel's Argument and Summary of Evidence – of this Narrative. BNSF's position is summarized briefly below.

1. Cost of Capital

The Board asked the parties to comment on two general issues concerning the cost of capital assumptions to be used in the DCF analysis of WFA/Basin's supplemental SAC evidence. (1) whether the industry cost of capital for 2002 through 2005 should be replaced with revised calculations using the CAPM model; and (2) whether the forecasted cost of capital should be based on an average of the years for which there is a Board-determined industry cost of capital or whether the Board should use the 2006 CAPM-based cost of equity as a stand-alone proxy for the SARR's future cost of capital.

As to the first issue, it would be unlawful for the Board to assume, on an ad hoc basis in the context of an individual rate case, a value for the railroad industry cost of capital that is different from the value that the Board previously established in cost of capital proceedings. The Board's prior determinations became final and had the force of law. When an agency acts in a quasi-legislative capacity, as the Board does when determining the railroad industry cost of

capital that is to be used in quasi-judicial regulatory proceedings, the agency is bound by its determinations, just as all other parties are bound by those determinations. As long as those prior determinations remain in effect, the agency is bound to comply with them and it cannot disregard those determinations in individual proceedings, even if concludes they were erroneous. This principle has its roots in the Supreme Court's decision in *Arizona Grocery Co v Atchison, T & S F. Ry. Co* , 284 U.S. 370 (1932). Moreover, while BNSF believes that the Board's prior cost of capital determinations could not be retroactively changed consistent with *Arizona Grocery*, in any event no change could even be considered without following the Board's rules governing the reopening of final decisions. Ad hoc departures from final and established determinations could not lawfully be made in the context of individual rate cases.

In addition, it would be inconsistent with sound economic and regulatory policy considerations to recalculate for purposes of this rate case the cost of capital figures that were previously established by the Board using the DCF methodology. As discussed in Section I.G, the Board did not abandon the DCF approach because the Board concluded that it had produced flawed or inaccurate results in the past, but rather because the Board decided that CAPM represented a superior approach going forward. Indeed, the Board was prompted to adopt CAPM only after changes in economic conditions produced large swings in the DCF-based calculations from 2004 to 2005, giving the Board a concern about future applications of the DCF-based approach. The Board never cited any concerns with prior DCF-based calculations, which had produced relatively stable and even declining cost of capital determinations from 2000-2003, as grounds for changing the cost of capital methodology. The Board's concerns were prospective, and the change in cost of capital methodology was prospective.

Under these circumstances, an *ex post* change in the Board's prior cost of capital determinations would be unwarranted and would introduce an element of arbitrariness in the Board's regulatory processes that could seriously impact future investments. These concerns are discussed in greater detail in the Verified Statement of Robert S. Hamada and Rajiv B. Gokhale, attached as BNSF Third Reply Exhibit III G-1 to this Narrative. Hamada/Gokhale explain that there are three reasons not to make *ex post* adjustments to the cost of capital the Board had previously determined was appropriate for the years 2002 to 2005:

- *Ex post* adjustments to the cost of capital will decrease predictability regarding the regulatory return on railroad investments, and therefore could decrease railroads' and investors' willingness to undertake future investments.
- It is unclear whether the Board would have picked the numerous micro practical inputs to the CAPM methodology in the same manner it decided to in 2006, had it decided to use the CAPM at an earlier point in time.
- Allowing a select group of claimants to reopen past decisions risks favoring a select category of litigants and introduces asymmetry into the system. Allowing fairness and symmetry to all concerned parties so that each can reopen past decisions will risk chaos in the regulatory system.

Finally, as to the proper methodology for forecasting the SARR's cost of capital, the Board should continue to follow its policy of using an average of all years relevant to the SARR (i e , starting with the year in which SARR construction is assumed to begin) for which there is a previously determined cost of capital figure available. Thus, the Board should forecast the SARR's future cost of capital using an average of the actual 2002-2006 cost of capital, and it should include the 2007 cost of capital if that determination has been made by the time the Board issues a decision in this case.

As explained in Section I.G, the Board has repeatedly stated that forecasts should be based on as many years' data as possible. The Board has correctly recognized that forecasts based on a single year, or a small number of years, tend to perpetuate the peculiar circumstances

of those years and therefore are likely to distort the forecast. There is no reason to depart from the Board's well established approach here. While the Board has decided to use the CAPM model for cost of capital determinations going forward, the Board never concluded that prior estimates of the railroad cost of capital were flawed, inaccurate or misleading and there is no basis in the record for reaching such a conclusion.

Moreover, it would be particularly unwise for the Board to change its approach now and rely only on a CAPM-based 2006 (and 2007, if available) determination to project future year cost of capital in light of the fact that the Board is presently considering changing its cost of capital method once again. Projecting the SARR's future year cost of capital based only on the 2006 (and 2007) calculation would put too much weight on determinations based on a methodology that is being reconsidered. Clearly, the fact that the Board is considering prospective changes in its existing CAPM methodology does not justify *excluding* the 2006 and 2007 determinations from the determination of the SARR's future year cost of capital, for the same reasons that the Board's consideration and adoption of changes in 2006 to the existing DCF methodology does not justify excluding the prior DCF-based calculations. But the Board's current review of the cost of capital methodology is based on a recognition that there is no certainty in the determination of the railroad industry cost of capital and there are a range of considerations that would support the use of different models to estimate the cost of capital. Given the inherent lack of certainty in estimating the railroad industry cost of capital, the Board should continue using its existing approach of relying on as many prior year calculations as possible in forecasting the SARR's cost of capital

2. Inflation Indices

BNSF does not make any changes in the inflation indices or procedures used by WFA/Basin in their TSO.

3. Tax Liability

BNSF does not make any changes in tax calculations used by WFA/Basin in their TSO.

H. Results of SAC Analysis

1. Summary of DCF Analysis

Table III.H-1 below summarizes the results of the DCF analysis based on BNSF's revenue, cost, and cost of capital assumptions discussed previously in this Narrative. Specifically, the results assume: (1) ATC is calculated using BNSF's densities (Section III.A.3.c.(ii)); (2) ATC is calculated as originally proposed by the Board (Section III.A.3.c.(iii)); (3) ATC is calculated using the Board's previously established URCS costs for the base year (Section III.A.3.c.(i)); (4) revenues for the rerouted traffic are adjusted to counter the impact of WFA/Basin's attempt to game MMM (Section III.A.3.d.(i)); and (5) the equity component of the cost of capital is based on the industry cost of capital determined by the Board for 2002 through 2006 and the AAR calculated cost of capital for 2007, with forecasts based on an average of the 2002 through 2007 figures (Section III.G.1).[1] The calculations supporting these results are contained in BNSF TSR workpaper "Exhibit_III H-1 FTI OATC D.xls."

[1] For the Board's convenience, BNSF has set up its DCF workpapers so that the Board can test the impact of the various revenue assumptions made by BNSF. BNSF TSR workpaper "Exhibit_III-H-1 FTI D.xls" calculates results based on modified ATC and BNSF densities while BNSF TSR workpaper "Exhibit_III-H-1 FTI OATC.xls" calculates results based on original ATC and LRR densities.

Table III.H-1
BNSF Base Case Incorporating Reroute Revenue Adjustment and ATC Revenues

Year	BNSF Revenue Requirements	BNSF Revenues (incl. Reroute Revenue Adjustment)	Adjusted Overpayments (Shortfalls)	Present Value
2004	$50.9	$42.0	($8.9)	($8.8)
2005	208.8	175 3	(33 5)	(31.0)
2006	213.3	185.1	(28 2)	(23.5)
2007	217.3	194.3	(23.0)	(17.3)
2008	220.7	196.7	(24.0)	(16.3)
2009	228.2	205.9	(22.3)	(13.7)
2010	231.7	208.2	(23 5)	(13.0)
2011	235 2	211.7	(23.5)	(11.7)
2012	239 8	216.4	(23.4)	(10.5)
2013	245.2	221.6	(23.7)	(9.6)
2014	250 5	225 5	(25.1)	(9.2)
2015	254.0	225 9	(28.2)	(9.3)
2016	260.4	231 6	(28.8)	(8.6)
2017	267.9	240.1	(27 8)	(7.5)
2018	274 8	248 4	(26.4)	(8 4)
2019	281.2	254.7	(26 5)	(5 8)
2020	287.9	261.6	(26.3)	(5 2)
2021	294 8	269.0	(25.8)	(4 6)
2022	301.6	275.5	(26.2)	(4.2)
2023	308.6	282.7	(25.9)	(3.7)
2024	236 1	217.5	(18.6)	(2.5)
Cumulative Net Present Value				**($224.2)**

To demonstrate the impact of the adjustments it is proposing, BNSF presents in Exhibit III.H-2 a more detailed analysis of those adjustments. Page 1 of the Exhibit shows how the results under WFA/Basin's base case would change if the revenue adjustment for rerouted traffic advocated by BNSF is made. Page 2 of the Exhibit shows the impact of adopting BNSF's revenue calculations and revenue adjustment for rerouted traffic while still retaining

WFA/Basin's calculation of the SAC requirement. Finally, for comparison purposes, page 3 shows the results when both BNSF's SAC and revenue assumptions are used. The page 3 results are the same as those presented in Table III.H-1 above

As directed by the Board, BNSF has also calculated results under two alternative scenarios that have different cost of capital assumptions.[2] The first alternative scenario uses the industry cost of capital determined by the Board for 2002 through 2006 and the AAR cost of capital calculations for 2007, and forecasts the future cost of capital using only the 2006 and 2007 costs of capital. Results for that scenario are reported in BNSF TSR workpaper "FTI DCF CAPM 06-07.xls." The second alternative scenario restates the industry cost of capital for 2002 through 2005 based on a CAPM cost of equity and uses the average of the 2002 through 2007 cost of capital for forecasts. For purposes of this second alternative scenario, BNSF has used the 2002 through 2005 CAPM-based cost of capital calculations contained in WFA/Basin's workpapers. The results of the second alternative scenario are reported in BNSF TSR workpaper "FTI DCF CAPM.xls."

2. Application of MMM

The results reported in Table III.H-1 above show that no application of MMM is called for because there is no overcharge. There are, however, a number of issues concerning the application of MMM that the Board will need to address if it determines that SARR revenues exceed SAC.

[2] BNSF believes that the scenario for which results are reported in Table III.H-1 adopts the proper approach to cost of capital: industry cost of capital based on the values published by the Board for 2002 through 2006, 2007 values based on the AAR's application of the Board's current methodology, and forecast cost of capital based on the average of those values.

a. Rate Prescriptions Should be Calculated for Individual Mine Origins Based on the R/VC Ratio for Serving those Mines.

WFA/Basin continue to request that the Board prescribe a single maximum rate per ton that applies to all mine origins.[3] WFA/Basin renew this request in their supplemental evidence without any discussion of why prescribing a single rate is appropriate when WFA/Basin source coal from a number of different mines or how prescribing a single rate applicable to mine origins with different variable costs could be consistent with MMM. The Board should hold that WFA/Basin have failed to satisfy their burden on this issue as their opening evidence in this round offers no justification for pursuing their requested approach.

BNSF addressed WFA/Basin's earlier request for prescription of a single rate prior to the Board's adoption of MMM.[4] As BNSF pointed out, there are valid commercial reasons to apply different rates to different mines given the different cost of serving those mines and the relatively short distance between the PRB and the Laramie River plant. For Laramie River, the distance between mines materially affects the overall length of haul. A movement to the Laramie River plant from the Dry Fork mine in the north, for example, is more than 50% longer than a movement to that plant from the Antelope mine in the south.[5] WFA/Basin's own evidence confirms that there are significant differences in the variable costs of serving the mine origins from which the Laramie River plant is assumed to source coal in the SARR world [6] For

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[3] WFA/Basin TSO Nar. at I-25.

[4] BNSF Reply Nar. at III.H-28 to III.H-31.

[5] BNSF Reply Nar. at III.H-28.

[6] As discussed in more detail below, there are significant differences between the SARR-world – where Laramie River is presumed to source a substantial part of its coal from mines in the southern PRB – and the real world where Laramie River sources its coal from central and northern PRB mines.

example, BNSF's fourth quarter 2004 variable cost for serving the northern Eagle Butte mine – a figure on which WFA/Basin and BNSF agreed – was $1.63 per ton compared to $1.29 per ton (also an agreed figure) for the Jacobs Ranch mine, which is in the central region of the PRB. The variable costs for serving the northern mine are more than 135% of the variable costs for serving the central mine.[7]

MMM is based on capping rates according to the ratio of revenues to variable costs. Where the SARR exhibits an overcharge based on existing rates, the overcharge is eliminated by capping all rates above a calculated threshold at a common R/VC level. Because of MMM's dependence on variable costs, it makes no sense to ignore differences in variable costs among movements involving different mine origins.[8] Imposing a single rate, as WFA/Basin advocate, would distort the MMM results and would create improperly preferential rates for movements from mines where the actual variable costs are above the weighted-average variable cost. Rates for the northern mines, where the variable costs of transportation are higher, would be driven down to the weighted-average rate, thereby producing for those northern mine movements a lower R/VC for the movement than is warranted under MMM. The use of a weighted-average rate would therefore be fundamentally inconsistent with the MMM methodology.

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[7] As discussed in Section III.H.2.c below, WFA/Basin have improperly restated BNSF's URCS costs and the applicable jurisdictional thresholds. However, even under WFA/Basin's restated variable costs, the variable cost of serving Eagle Butte is more than 125% of the variable cost of serving Jacobs Ranch.

[8] WFA/Basin apparently recognize that MMM requires the development of R/VC ratios for specific O/D pairs. WFA/Basin's own MMM calculations use the mine-specific variable costs to determine R/VC ratios, and actually calculate an "MMM rate" for each origin mine. *See* WFA/Basin TSO Exhibit III-H-1 and WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls," worksheet "Summary Page 1." Calculation of the single weighted-average rate that they assert should be prescribed occurs only after the individual mine rates have been determined.

Moreover, as BNSF documented in its reply evidence,[9] WFA/Basin calculate a single weighted-average rate that is predicated on assumptions about the mine origins of coal for the Laramie River plant that do not reflect reality. Although WFA/Basin acknowledge that most coal destined for the Laramie River plant has historically originated from central and northern PRB mines,[10] their assumption for purposes of the SARR is that, beginning with the first quarter of 2005, a very high proportion of Laramie River's coal will come from southern mines that have lower variable costs. The proposed single rate is weighted based on assumed tonnage originating at particular mines and the mine origin assumption therefore has a very significant impact on the level of the prescribed rate under WFA/Basin's flawed approach. For example, for the fourth quarter of 2004, WFA/Basin assumed that all coal for the Laramie River Plant would come from central and northern PRB mines.[11] But beginning with the first quarter of 2005, WFA/Basin assumed that a large proportion of Laramie River coal would come from southern mines.[12] Driven mostly by the larger volume of coal supposedly being originated at the southern mines in 2005, the maximum rate that WFA/Basin say should be prescribed falls from $2.82 in the fourth quarter of 2004 to an annual level of $2.57 in 2005.[13]

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[9] BNSF Reply Nar. at III.H-29.

[10] WFA/Basin Opening Nar. at III-A-12.

[11] *See* WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls," worksheet "4Q 2004," cells H31 through H34.

[12] *See* WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls," worksheet "1Q 2005," cells H31 through H34.

[13] WFA/Basin TSO Nar. at III-H-5. In fact, review of WFA/Basin's maximum rate exhibit confirms that it determined higher rates in 2005 for specific mines, and then manipulated the weighting to produce the near-10% decrease in its single weighted-average rate. *See* TSO Exhibit III-H-1.

Prescribing a single rate, as WFA/Basin request, would open the door to abuse. As noted, WFA/Basin's proposed single rate is substantially reduced because of the SARR-world assumption that much of the coal originates from southern mines. In the real world, however, WFA/Basin are not bound by the SARR assumptions. WFA/Basin would be free to continue to source coal from central and northern mines, but would do so at an artificially low rate based on the SAC assumption that coal would be sourced from southern mines. The impact of such a strategy is potentially very large. As the following table based on WFA/Basin's own calculations for the first quarter of 2005[14] demonstrates, WFA/Basin would achieve an illegitimate additional reduction of 8 to 22% (19 to 53 cents per ton) in the rates for the central and northern mines that they actually use if the rate prescription were based on a single weighted-average rate instead of the mine-specific MMM rates that WFA/Basin actually calculate before deriving their average rate. The mine-specific rates reflect the different variable costs of serving individual mines and therefore differ significantly from the average.

Table III.H-2
Comparison of 1Q 2005 WFA/Basin Mine-Specific MMM Rates to WFA/Basin Single Rate

Mine Group	Mine	1Q 2005 MMM Rate	Difference From Weighted-Average MMM Rate
Northern	Dry Fork	$2.96	+22%
Central	Caballo	$2.66	+9%
	Caballo Rojo	$2.62	+8%
Southern	Antelope	$2.00	-18%
Weighted-Average Rate		**$2.43**	

[14] The source of MMM rates in the table is WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls," worksheet "1Q 2005."

There are other potential issues with WFA/Basin's request for prescription of a single rate applicable to all mines. Rates set at the jurisdictional threshold level differ among movements from the different mine origins. Although maximum reasonable rates should be well above the the jurisdictional threshold level in this case, the extremely low average rate proposed by WFA/Basin raises the issue jurisdictional. Under the results presented by WFA/Basin, the Board would be prescribing a maximum rate that is below the jurisdictional threshold for Dry Fork and Eagle Butte in the fourth quarter of 2004. WFA/Basin assert that the maximum rate should be $2.82, but the agreed variable costs for Dry Fork and Eagle Butte in that quarter produce jurisdictional thresholds of $2.90 and $2.93, respectively.[15] The situation would be exacerbated in subsequent years because the single maximum rate proposed by WFA/Basin falls to $2.57 in 2005, $2.48 in 2006, and does not return to its starting level until it reaches $2.80 in 2014. Assuming even minimal increases in variable cost over time, the single rate would almost certainly be below the jurisdictional threshold for northern mines until at least 2014 and potentially beyond. With even modest increases in variable costs over that period, the average rate would likely be below the jurisdictional threshold for at least some of the central mines as well. For example, the agreed jurisdictional threshold for Caballo Rojo in the fourth quarter of 2004 was $2.57, but WFA/Basin are proposing a maximum rate for 2006 of just $2.48. The Board does not have jurisdiction to prescribe rates at these levels.

As discussed below, the use of a single weighted-average rate also substantially inflates WFA/Basin's reparations claims.

[15] WFA/Basin TSO Nar. at II-A-1.

For the above reasons, if the Board determines that maximum reasonable rates need to be prescribed in this case, it should reject WFA/Basin's "single rate" approach and prescribe maximum reasonable rates for each mine-origin to plant movement.

b. Before Application of MMM, R/VC Ratios for all Movements Should be Normalized to Reflect the Length of Haul.

WFA/Basin seek to emphasize the relatively high R/VC ratios on the issue traffic movements in this case, suggesting that those ratios themselves are indicators of unreasonableness. But this focus on R/VC ratios obscures the broader economic issues that affect the level of rates on relatively short-haul movements like the PRB movements to the Laramie River Station at issue in this case. It is well recognized by shippers, railroads, and industry observers that short-haul movements, particularly those to solely served rail facilities, tend to have lower absolute rates than longer haul movements, but those lower rates exhibit higher R/VC ratios than rates on longer haul movements. The Board itself alluded to some of the causes of these differences in the *September 2007 Decision.* Commenting on the reasonableness of the rates charged WFA/Basin, the Board stated:

> Because WFA's plant is located so close to the PRB, its rate to the Laramie River plant is one of the lowest transportation rates any utility pays to acquire PRB coal. Many utilities that desire the low-sulfur PRB coal are located in distant states such as Texas or Georgia, and pay two or three times this rate. Even in comparison to other utilities located near (but not quite as close to) the PRB mines, the rate is low on a dollar-per-ton basis. The rate is also low in comparison to other PRB rates that have been challenged before the Board as unreasonable by other captive shippers.

September 2007 Decision at 2. In light of these factors, the Board concluded that WFA/Basin had not demonstrated that the rates were unreasonably high when compared to rates paid by other utilities.

The higher R/VC ratios exhibited by short-haul shippers are a function of shipper demand affected by product and geographic competition in the markets in which short-haul shippers compete with other rail shippers less favored by geography. The factors cited by the Board regarding the issue traffic are some of the various market forces that generally result in short-haul rates that exhibit higher R/VC ratios than long-haul rates when railroads set differential prices based on their customers' demand for service, as railroads are expected to do. Because short-haul shippers generally pay lower absolute rates per ton than their competitors, they exhibit higher demand inelasticity than long-haul shippers. Laramie River, for example, has a significant cost advantage over other utilities against which it competes in selling electricity. The low cost of transportation per ton that it pays, due to its proximity to the PRB, translates into a lower cost to produce a kilowatt hour of electricity than can be achieved by competing utilities that must pay higher per-ton transportation rates. From an economic perspective, this cost advantage means that Laramie can afford to pay rates reflecting a higher than average R/VC ratio and still maintain its competitive advantage in the market for electric power sales.

Another factor that tends to result in relatively high R/VC ratios on short-haul movements is the railroad's incentive to maximize its contribution in excess of variable costs on each movement, regardless of length of haul. For a railroad such as BNSF seeking to price its services efficiently in accordance with shipper demand, the absolute amount of contribution available on a given movement can be substantially greater on a long-haul movement than on a short-haul movement, even if the R/VC ratio on the short-haul movement is higher. For example, the contribution on a relatively long-haul movement that incurs variable costs of $10 per ton and is priced at $20 per ton is $10 per ton: whereas the contribution on a relatively short-haul movement that incurs variable costs of $3 per ton and is priced at $9 per ton is only $6 per

ton. The short-haul movement exhibits a higher R/VC ratio (300 percent) than the long-haul movement, but results in $4 per ton less in contribution.

The significance of this disparity in absolute contribution between long-haul and short-haul movements is compounded by the fact that access to mine loading slots in the PRB is a finite and limited resource that is not distance-dependent. Where higher margin movements compete with lower margin movements for limited loading capacity, as has been the case in the PRB for the last several years, BNSF incurs an opportunity cost every time it loads a relatively low margin ton, such as one of the 8 million low-margin tons that it loads for WFA/Basin every year.

In a fully competitive market environment, scarce PRB loading capacity would be allocated to the movements that generated the highest absolute dollars in contribution per ton, which would favor long-haul traffic with its higher contribution. In a regulated environment, where railroads have a common carrier obligation to serve all coal shippers on reasonable request, railroads have the incentive to minimize the cost of lost opportunities by raising rates to increase the contribution on low absolute margin short-haul traffic to the extent that a given shipper's demand will permit. Thus, to use the earlier example of the short-haul movement with a rate of $9 per ton, variable costs of $3 per ton and absolute contribution of $6 per ton, if the shipper's demand permitted the railroad to increase the rate to $11 per ton, the railroad would have a strong incentive to do so. This would result in a contribution margin of $8 per ton and an R/VC ratio of 3.67. But the increased rate and higher R/VC ratio on the short-haul movement still would not put the short-haul movement on a par with the hypothetical long-haul movement that yields contribution of $10 per ton.

It is entirely rational and consistent with the differential pricing regime promoted by the Board and its predecessor for a railroad to price short-haul traffic at a higher R/VC to increase the contribution from that traffic to levels closer to the contribution levels generated on longer-haul movements. In fact this is the kind of pricing behavior that is observed in the real world. Thus, it is not only the effects of market forces in the shipper's markets that tend to result in higher R/VC rates for short-haul traffic; the opportunity costs resulting from the limited loading capacity in the PRB also makes higher R/VC rates for short-haul traffic economically appropriate.

The phenomenon of relatively high R/VC ratios on short-haul movements has important implications for the application of MMM that the Board has not heretofore had occasion to consider. Specifically, this phenomenon suggests that the application of a single average R/VC ratio cap to all movements in a SARR shipper group, regardless of length of haul, would tend to understate the R/VC averages one would expect to find on shorter haul traffic under a rational application of differential pricing and would tend to overstate the R/VC average that one would expect to find on longer haul traffic. As applied in this case involving a very short-haul issue traffic movement, application of MMM without some length of haul adjustment could be expected to punish the railroad to some degree simply because of the short haul.

To quantify the extent of the difference between short-haul and long-haul rates – and to provide a basis for incorporating a "length of haul" adjustment into MMM (see discussion below) – BNSF witness Klick performed a regression analysis on R/VC ratios for the end-to-end movement of all traffic included in WFA/Basin's original traffic group, which effectively represents nearly all BNSF coal movements originating in the PRB. The regression equation developed by Mr. Klick includes a variable to quantify the impact of the length of haul on the

R/VC ratio. In addition, because the ratio of revenue to unadjusted URCS variable costs is also potentially affected by a plant's "competitive" status and its annual volume, the regression equation includes variables to control for these two factors as well. The form of the equation used was:

$$R/VC = Constant + x/Distance + y*Dummy\ 1 + z*Dummy\ 2$$

Where: Dummy 1 = 1 if solely-served, and 0 if not, and

Dummy 2 = 1 if "high volume" plant, *i.e.*, more than 2 million tons annually, and 0 if not

The regression was run using data produced by WFA/Basin.[16] The resulting regression equation with calculated coefficients was

$$R/VC = \{ \qquad \}$$

Coefficients for the independent variable (1/Distance) and the two dummy variables were all significant at the 95% confidence level, and the R^2 for the regression was 0.67. In other words, the inverse of the length of haul, combined with the "solely served" and "high volume" dummy variables, explain approximately 67% of the variation in R/VC ratios observed in the data.

As currently designed, MMM ignores – or, more accurately, works to eliminate – the market-based differences in revenue-to-variable-cost ratios that one observes in the real world data between rates paid by short- and long-haul shippers. This is because MMM establishes a

[16] The data for the "solely-served" and the "high volume" dummy variables were drawn directly from data provided in WFA's most recent set of workpapers *See* WFA/Basin ISO workpaper "STB LRR Traffic and Revenues_ModifiedSAC_Opening_1_CAPM.xls," worksheet "ProjTonRev." Two million tons was selected as the threshold for "high volume" because this is approximately the median annual tonnage for all destinations in the traffic data. The regression calculations are contained in BNSF TSR workpaper "Regression analysis_RVC v Length of Haul.xls." In addition, to minimize the adverse effects of autocorrelation, all movements to a given plant destination were combined (on a weighted-average basis) into a single data point, resulting in a Durbin-Watson statistic for the regression that confirms that autocorrelation is at acceptable levels.

single R/VC ratio that would cap rates for shippers at both the short-haul and long-haul ends of the spectrum. Capping rates for shippers at identical R/VC ratios, regardless of length of haul, eliminates an important dimension of differential pricing that is observed in rail transportation markets and would create illogical disparities in the outcomes of rate cases involving relatively long-haul or short-haul movements.

MMM can be modified to recognize and preserve the differential pricing characteristics established by the market forces discussed above. The regression equation set forth above can be used to "normalize" the R/VC ratios for individual shippers on the SARR so that when MMM is applied it will not reduce rates simply because a shipper has a short length of haul. Instead, MMM will reduce rates that are disproportionately high given the length of haul. When normalized R/VC ratios are used, short-haul shippers will receive MMM-based rate reductions consonant with their status as short-haul shippers, *i e* , reductions that reflect the extent to which the rate on an individual movement is "too high" relative to rates on other movements of comparable distance (and with identical "solely-served" and "high volume" characteristics). When applied using normalized R/VC ratios, MMM reduces rates most on movements exhibiting the *relatively highest* R/VC ratios, as the Board intended, while still taking into account those legitimate dimensions of differential pricing that yield relatively higher R/VC ratios on short-haul movements.

Normalizing R/VC ratios using the regression equation set forth above involves three steps. First, "benchmark R/VC ratios" must be developed for each of the four possible combinations of dummy variables [17] Mr. Klick determined the median distance of all

[17] As described in more detail below, the benchmark R/VC ratios are used in comparing how much the actual R/VC for a shipper differs from the R/VC for that shipper that is estimated through the regression equation.

movements in the sample – 1,111 miles – and used that to calculate these benchmark R/VC ratios. The regression equation set forth above was used to calculate the R/VC ratio one would expect to observe for an 1,111-mile move under each of the four scenarios. These benchmark R/VC ratios are set forth in the following table:

Table III.H-3
R/VC Ratio Estimated by Regression Equation
To Develop R/VC Benchmark Ratios At 1,111 Miles[18]

Movement Type	Estimated R/VC
Solely-Served, High Volume	{ }
Solely-Served, Low Volume	{ }
Competitive, High Volume	{ }
Competitive, Low Volume	{ }

The second step is to derive a "normalization ratio" for each movement in the SARR traffic group. The regression equation is used to estimate the expected R/VC ratio for each individual movement in the SARR traffic group.[19] The normalization ratio is calculated by dividing the expected R/VC for an individual movement by the benchmark R/VC ratio at 1,111 miles for the same movement type from the above table, *i.e.*, if the movement in question is solely-served and high-volume, then the benchmark R/VC ratio used is { } The normalization ratio identifies how much higher or lower than the corresponding benchmark an individual movement would be expected to be as a result of its length of haul. For example, the normalization ratio for a 500-mile, solely-served, high-volume move is {

}. The normalization ratio is greater than one because the 500 mile

[18] *See* BNSF TSR workpaper "Regression analysis_RVC v Length of Haul.xls."

[19] By expected R/VC ratio, we mean the ratio predicted by the regression equation for the movement's length of haul and dummy variable characteristics.

haul is expected to exhibit a higher R/VC than the 1,111-mile haul. A movement with a haul longer than 1,111 miles would have a normalization ratio less than one.

The third step in the normalization procedure is to divide the actual R/VC ratio observed in the data for each individual movement in the SARR traffic group by the relevant normalization ratio calculated in step 2.[20] These "normalized R/VC ratios" have the effect of putting the R/VC ratios for all movements in the SARR traffic group on a distance-comparable basis. As a result, movements that exhibit high R/VC ratios after being normalized are properly viewed as high rated movements across the entire spectrum of traffic; the fact that they are relatively high is not attributable to length of haul.

To determine applicable rate reductions, MMM is applied using the normalized R/VC ratios for each movement in the traffic group determined in step 3. Because the R/VCs for individual moves have been normalized, it is also appropriate to specify the average R/VC for the SARR as a whole (which is the R/VC at which revenues equal SAC and the starting point for applying MMM) in normalized terms.[21] This is accomplished by multiplying each movement's variable costs by the normalization ratio developed in step 2, summing total normalized variable costs across all movements, and dividing into SAC. This normalization of the overall target

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[20] In this step, we are applying normalization ratios, based on end-to-end R/VC relationships (derived from the regression equation), to the R/VC ratios observed for only the on-SARR portion of the movement. This is appropriate because, as we noted above in Section III.A, application of ATC seeks to attribute the end-to-end revenue to sub-segments of the BNSF system based on each segment's proportion of BNSF's total cost. As a result, if the end-to-end R/VCs are normalized, the ATC-allocated portion of these end-to-end R/VCs attributed to the SARR will also be normalized by the same end-to-end factor.

[21] The normalized average R/VC for the SARR will be different from the unnormalized average R/VC for the SARR unless the SARR traffic group has an overall average length of haul of 1,111 miles.

SAC/VC permits an unbiased comparison of each distance-adjusted R/VC to a target R/VC that has also been distance-adjusted.

By virtue of the normalization process, relatively shorter-haul movements will receive relatively smaller rate reductions, all else being equal.[22] When MMM is applied to the normalized R/VC ratios, a short-haul shipper does not receive a rate reduction simply because it has a high nominal R/VC ratio due to its short length-of-haul. Similarly, a long-haul shipper does not fail to receive a rate reduction simply because it has a low nominal R/VC ratio due to its long length-of-haul.

Once MMM has been applied to the normalized R/VC ratios for the SARR traffic group, the resulting rate reductions – if any – need to be "translated" back into the rate reductions applicable to the un-normalized R/VCs we observe in the real world. This is accomplished by *multiplying* each post-MMM normalized R/VC ratio by the normalization ratio calculated for that movement in step 2 above.[23] BNSF TSR workpaper "MMM Implementation Example xls" demonstrates that when this process for "normalizing" for length of haul is applied across all movements in the SARR traffic group, total resulting revenue reductions are sufficient to precisely eliminate the "overage" of revenues over SAC, just as is the case under the basic formulation of MMM.

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[22] For example, if two solely-served, high-volume moves exhibited identical R/VC ratios of 300%, but the first had a 500-mile haul, and the second had an 800-mile haul, the normalized R/VC for the first would be { }, while the normalized R/VC for the second would be { } – reflecting the fact that the distance adjustment for the shorter haul movement should be larger. Assume that when MMM is applied using the normalized R/VC ratios both movements would get a rate reduction. As the normalized R/VC for the shorter-haul movement is lower, it receives less of a rate reduction than the longer-haul movement would receive, consistent with the market factors outlined above.

[23] This is the mathematical equivalent of multiplying the original (*i.e.*, non-normalized) R/VC ratio observed for each movement by the ratio of the pre-MMM normalized R/VC for that movement to the post-MMM normalized R/VC for that movement

c. Unadjusted URCS Cost Inputs as Established by the Board Should be Used to Calculate Both MMM R/VC Ratios and Jurisdictional Thresholds.

WFA/Basin made two modifications to the calculation of variable costs as they relate to application of MMM and rate prescriptions. One modification, which WFA/Basin disclosed in their narrative, was that they restated the jurisdictional threshold for the issue-traffic movements by recalculating URCS using CAPM-based cost of equity values for 2004. The other modification, which WFA/Basin did not discuss in their narrative, was that in calculating the R/VC ratios for all other shippers they used URCS-based variable costs that were lowered by retroactive use of a CAPM cost of equity for purposes of the cost of capital incorporated in URCS.

As to the first modification, the restatement of the jurisdictional threshold is clearly inappropriate for the reasons discussed in Section II.A above. As discussed in Section II.A, the parties agreed on the variable costs for the issue-traffic movement and the Board did not reopen the question of how those variable costs should be calculated when it permitted WFA/Basin to submit additional evidence. In addition, the Board has already determined what the unadjusted URCS costs for BNSF are for 2004 and 2005 for purposes of using URCS in regulatory applications, and it would not be lawful or appropriate for the Board to use different URCS cost assumptions on an ad hoc basis in individual cases. The Board has not modified those previously established URCS costs to reflect the lower CAPM-based cost of equity that WFA/Basin is attempting to introduce, nor should it. There is simply no basis for recalculating the Board's settled URCS costs for prior historical periods to reflect a new cost of capital methodology that was adopted only for the purpose of assessing future years' cost of capital for the railroad industry.

WFA/Basin's proposed (but unexplained) modification to URCS variable costs for purposes of applying MMM is also impermissible. There is no more justification for retroactively changing the variable costs of non-issue traffic than there is for doing so with respect to the issue traffic. Moreover, not only was the modification to variable costs revealed only in WFA/Basin's workpapers, it was contrary to the Board's specific instructions concerning how MMM was to be implemented in this case. In the *November 2006 Decision*, the Board directed that variable costs should be calculated using the URCS program that corresponds to the base year of the case. *November 2006 Decision* at 4. For purposes of subsequent years, the base year variable cost would be indexed using the hybrid RCAF-U/RCAF-A index that the Board adopted in Ex Parte No. 657 (Sub-No. 1). *Id* The Board also specifically directed that "[p]arties should provide a clear narrative discussion that describes any assumptions and all steps taken to cost these movements." *Id.*

Given this direction, it was entirely inappropriate for WFA/Basin to calculate the variable costs they used for applying MMM in a different manner. The base year for the LRR is 2004. The URCS cost model for 2004 as published by the Board uses the cost of equity capital as determined by the Board in *Railroad Cost of Capital – 2004*, STB Ex Parte No 558 (Sub-No. 8) (STB served June 30, 2005). This was a determination that was not open to reevaluation as part of a limited submission of new evidence relating to RTC issues. WFA/Basin did not even discuss in its narrative that it had employed a different method, let alone provide a "clear narrative discussion" of how its calculations were made.[24] WFA/Basin's modified approach should not be allowed.

[24] WFA/Basin cannot rely on their cryptic statement in a footnote that "[t]he Exhibit III-H-1 MMM results use CAPM to determine the LRR's cost of equity in all time periods" as an adequate notice and explanation of their recalculation of the URCS costs used in MMM.

d. Summary of BNSF's Implementation of MMM

The results presented by BNSF do not result in an overcharge by the SARR and BNSF therefore had no cause to apply MMM to determine maximum reasonable rates. Nonetheless, given the issues addressed above, BNSF has prepared workpapers that demonstrate the application of MMM with (1) mine-specific rates; (2) normalized to account for the impact of length of haul; and (3) calculated using the proper base-year URCS variable costs. For purposes of this illustration, BNSF has used WFA/Basin's results presented in TSO workpaper "Exhibit_III-II-1.xls" as a starting point and has calculated MMM rate reductions for the first quarter of 2005. BNSF's calculations are contained in BNSF TSR workpaper "MMM Implementation Example.xls."

The impact of BNSF's proposed modification to MMM can be determined by comparing BNSF's calculated rate prescription levels for the first quarter of 2005 to the rate prescription level proposed by WFA/Basin in their evidence. For example, for the issue-traffic moves originating at Dry Fork mine, WFA/Basin propose a maximum R/VC of 192 percent [25] The maximum reasonable R/VC for Dry Fork under BNSF's approach is 226 percent.[26]

WFA/Basin TSO Nar. at III-H-3 n.1. The footnote clearly offers neither justification for nor explanation of the changes made. WFA/Basin also inexplicably use CAPM adjusted variable costs in their hybrid scenario which uses a DCF-based cost of capital for 2002 through 2005 but determines 2006 and beyond based on CAPM. *See* WFA/Basin TSO workpaper "Exhibit_III-H-3.xls."

[25] *See* WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 With CAPM VC xls," worksheet "1Q 2005," cell T55.

[26] *See* BNSF TSR workpaper "MMM Implementation Example.xls."

3. Reparations

BNSF explains in Section I why, even if the Board concludes that maximum rates should be prescribed, the Board should not award reparations prior to the date of the *September 2007 Decision*. Even if it were to determine that reparations could be required for any time period, the Board could not do so on the basis of a single weighted-average rate as WFA/Basin request. It is inappropriate to use a single rate for calculating reparations for the same reasons that it is inappropriate to prescribe a single rate. As discussed above in Section III.H.2.a, the single rate that WFA/Basin asserts should be used to calculate reparations is premised on assumptions about the mine origin mix that do not match actual historic traffic patterns. Indeed, the limited evidence in the record as to actual shipments shows that those shipments were much more heavily weighted to central and northern mines than was assumed by WFA/Basin for purposes of the SARR's traffic. Table III.H-4 below demonstrates the disparity for the first quarter of 2005. Because actual shipments were much more heavily weighted to northern and central mines than shipments on the SARR, a reparations calculation that used a single rate based on hypothetical SARR traffic patterns would substantially overstate any reparations owed. For the first quarter of 2005 alone, using the single rate instead of mine specific rates would overstate reparations by several million dollars based on the MMM rates calculated in WFA/Basin TSO workpaper "Exhibit_III-H-1.xls."

Table III.H-4[27]
WFA/SARR Assumptions vs. BNSF Actual
1Q 2005 Laramie River Shipments by Origin

		WFA/Basin SARR		BNSF Actual	
Mine Group	**Mine**	**Tonnages**	**% of Total**	**Tonnages**	**% of Total**
Southern	{ }	{ }	{ }	{ }	{ }
Central	{ }	{ }	{ }	{ }	{ }
	{ }	{ }	{ }	{ }	{ }
	{ }	{ }	{ }	{ }	{ }
Northern	{ }	{ }	{ }	{ }	{ }

Given the distorting effect of calculating reparations based on a single weighted-average rate, the Board should not do so.

4. Prescription Period

In *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No. 1) (STB served Oct. 30, 2006), the Board established a new rule that rate prescriptions would apply for only 10 years in future cases. The Board declined, at that time, to apply the new rule in this case primarily due to a concern that WFA/Basin had structured their case to accommodate 20 years of traffic growth under the old rule. As BNSF discusses in Section I.J above, as a result of WFA/Basin's substantially revised case the balance of factors cited by the Board has shifted and it now would be appropriate to apply the rule that rate prescriptions should be limited to 10 years.

The Board's concern that WFA/Basin would be prejudiced by a shift to a 10-year prescription because of issues relating to their design of and growth in their traffic group over

[27] Actual first quarter 2005 shipments are reported in WFA/Basin opening workpaper "WFA OPEN REPARATIONS RAM.123." Volumes by mine assumed for the SARR are reported in WFA/Basin TSO workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls," worksheet "1Q 2005."

time no longer pertain. For example, although the peak year used for the design of the LRR track configuration is year 20, the vast majority of the LRR assumed traffic growth occurs within the first 10 years of the LRR's operation. Overall forecasted tonnage volumes for the LRR are assumed to grow approximately 11 percent between 2004 and 2024 from 61 6 million tons to 68.5 million tons, but less than two percent from 67.4 million tons to 68.5 million tons between 2014 to 2024. Because, as WFA/Basin explain in their TSO, the reconfigured LRR is primarily a single track railroad, such a minor change in volumes is unlikely to have any measurable impact on the LRR design.[28]

On the other hand, the reasons the Board relied upon for the shift to a 10-year prescription period – the changed circumstances that arise over longer periods and the unreliability of long-range forecasts – have become, if anything, stronger. For example, in its most recent forecast of future coal volumes, EIA includes a number of alternative scenarios that incorporate the potential effects of S.2191 (The Lieberman-Warner Climate Security Act of 2007). The most aggressive scenario shows declines in western coal production of 23 percent between 2011 and 2012, with volumes falling to only 9 percent of their 2011 levels by 2024, the last year of the LRR DCF period. These estimates confirm that the next decade could be a time of significant change in coal usage patterns and that it would be unwise to lock in a rate prescription over a longer period when the forecasts upon which it would be based do not reflect the likely market turmoil.

[28] Indeed, as described in Section III.A.3 d.(i) above, BNSF's "SARR II" analysis, which reduced LRR volumes by approximately 19 million tons, or about a third, resulted in a reduction of 24 track miles, or only 5 percent. *See* BNSF TSR workpaper "TRACK_MILES_WORKSHEET_WFA_3rd_Supp - Alt2.xls."

IV. WITNESS VERIFICATIONS

1. Gerald G. Albin

Gerald G. Albin sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein. Mr. Albin has since retired from TranSystems and is now with Felsburg, Holt & Ullevig, 6300 S. Syracuse Way Ste. 600, Centennial, CO 80111.

For the Third Supplemental Reply Evidence, Mr. Albin is sponsoring evidence concerning Maintenance-of-Way costs for the reconfigured LRR. His evidence is contained in subsection III.D.4.

Mr. Albin has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Gerald G. Albin

2. Michael R. Baranowski

Michael R. Baranowski sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein

For the Third Supplemental Reply Evidence, Mr Baranowski is sponsoring evidence relating to application of the Board's DCF model and SAC calculations contained in Section III H of the Narrative.

Mr. Baranowski has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Michael R. Baranowski

3. Harry W. Bues, III

Harry W. Bues, III, sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Bues is sponsoring evidence concerning operating expenses contained in subsections III.D.1, III.D.2, III.D.3, and III.D.6.

Mr. Bues has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Harry W. Blues, III

4 Benton V. Fisher

Benton V. Fisher sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Fisher is sponsoring evidence relating to BNSF's variable costs for the issue movement, coal volumes and revenues, and application of MMM. His evidence is incorporated in Sections II, III.A, and III.H of the Narrative.

Mr. Fisher has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Benton V. Fisher

5. Rajiv B. Gokhale

Rajiv B. Gokhale is a Senior Vice President of Compass Lexecon, a consulting firm that specializes in the application of economics to a variety of legal and regulatory issues. He has an MBA from the University of Chicago and has specialized experience in the areas of financial economics and business valuation. His qualifications are reflected in the CV that is attached to BNSF Third Reply Exhibit III.G-1.

For the Third Supplemental Reply Evidence, Mr. Gokhale is sponsoring evidence relating to the calculation of the railroad industry cost of capital as set out in the Verified Statement that is Exhibit III G-1.

Mr. Gokhale has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 1, 2008

Rajiv B. Gokhale

6. Cassie M. Gouger, P.E.

Cassie M. Gouger, Project Manager with Felsburg, Holt & Ullevig, 6300 S. Syracuse Way, Ste. 600, Centennial, CO, 80111 (formerly of FTI Consulting, Inc.) sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and her qualifications are described therein.

For the Third Supplemental Reply Evidence, Ms. Gouger is sponsoring evidence relating to the incremental costs and revenues of serving certain traffic, incorporated in Section III.A.3 d, evidence concerning the route and track miles and yard configuration contained in III.B, and evidence concerning the road property investment costs of the reconfigured LRR contained in III.F and III.C.4 c

Ms. Gouger has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Cassie M. Gouger

Cassie M Gouger

7. Robert S. Hamada

Robert S Hamada is the Edward Eagle Brown Distinguished Service Professor Emeritus of Finance and former Dean at The University of Chicago Graduate School of Business ("GSB"). He has taught extensively on the subjects of corporate finance and corporate strategy He has experience on the Boards of Directors of businesses and non-profits. His qualifications are reflected in the CV that is attached to BNSF Third Reply Exhibit III.G-1.

For the Third Supplemental Reply Evidence, Mr. Hamada is sponsoring evidence relating to the calculation of the railroad industry cost of capital as set out in the Verified Statement that is Exhibit III G-1.

Mr. Hamada has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 1, 2008

Robert S. Hamada

Robert S Hamada

8. John C. Klick

John C. Klick sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Klick is sponsoring evidence relating to coal volumes and revenues and the application of MMM. His evidence is incorporated in Sections III.A and III.H of the Narrative.

Mr Klick has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

John C Klick

9. Loren E. Mueller

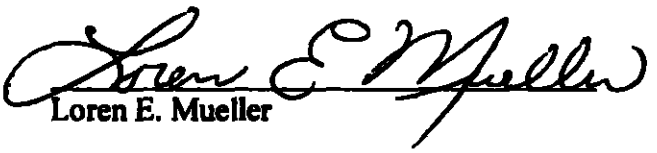
Loren E. Mueller sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Mueller is sponsoring evidence concerning traffic flow in Section III.C.1 a, evidence concerning crew assignments in Section III.C 2.g, and evidence concerning operating expenses contained in subsections III.D 1, III.D 2, III.D.3, and III.D.6.

Mr Mueller has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008



Loren E. Mueller

10 Robert J. Plum, III

Robert J Plum, III, sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Plum is sponsoring evidence relating to the incremental costs and revenues of serving certain traffic, incorporated in Section III.A 3.d, evidence concerning traffic flow in Section III.C 1 a, evidence concerning equipment in Section III.C 1.c, evidence concerning crew assignments in Section III.C.2.g, evidence concerning RTC calculations in Section III C.2.i, evidence concerning fueling in Section III C.4.a, and evidence concerning operating expenses contained in subsections III.D.1, III.D.2, III.D.3, and III.D.6

Mr. Plum has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

Robert J. Plum, III

11. David R. Wheeler

David R. Wheeler sponsored evidence that BNSF filed with its Reply Evidence on July 20, 2005, and his qualifications are described therein.

For the Third Supplemental Reply Evidence, Mr. Wheeler is sponsoring evidence relating to the incremental costs and revenues of serving certain traffic, incorporated in Section III.A 3.d, evidence concerning traffic flow in Section III.C.1.a, evidence concerning equipment in Section III.C.1 c, evidence concerning outages in Section III.C.2.d, and evidence concerning RTC calculations in Section III C.2.i.

Mr. Wheeler has signed a verification of the truth of the statement contained therein and a copy of his verification is attached hereto.

I declare under penalty of perjury that I have read the Third Supplemental Reply 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 July 11, 2008

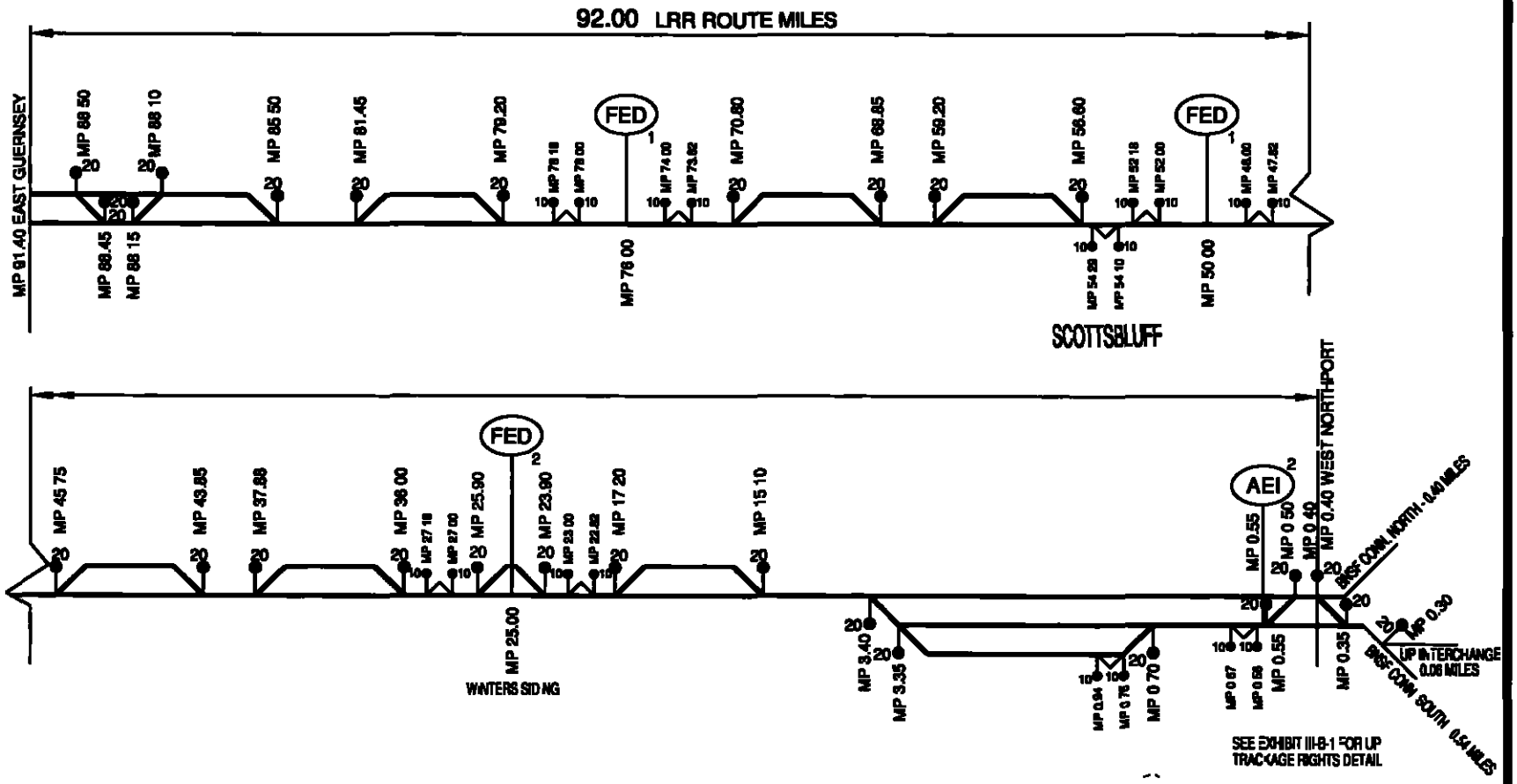
David R. Wheeler

Exhibit Redacted

Exhibit Redacted

Exhibit Redacted

Exhibit Redacted



RED = BNSF CHANGES ON TSR

SEGMENT 7
PAGE 9 OF 9

DIVISION: **POWDER RIVER**

SUBDIVISION: **VALLEY**

FROM: **EAST GUERNSEY** MP: **91.40**

TO: **WEST NORTHPORT** MP: **0.40**

DATE: **7/7/08**

NOT TO SCALE

LEGEND:

- 136# PREMIUM CWR
- 136# STANDARD CWR
- 115# CWR CLASS 1 RELAY

FED — FAILED EQUIPMENT DETECTOR WITH NUMBER OF TRACKS COVERED
HB = HOT BEARING DETECTOR
DE OR DED= DRAGGING EQUIPMENT DETECTOR
HW= HOT WHEEL DETECTOR

AEI — AUTOMATIC EQUIPMENT IDENTIFICATION SCANNER WITH NUMBER OF TRACKS COVERED

20 = TURNOUT TYPE*

* TURNOUT TYPES
24 - #24 ELECTRIC
20 - #20 ELECTRIC
14- #14 ELECTRIC
14H- #14 HAND-THROWN
10S- #10 SPRING
10- #10 HAND-THROWN
10E- #10 ELECTRIC

EXHIBIT III-B-2

Exhibit Redacted

Moba Train Outlaws
Highway and Train Transit
Moba Trains

Dry Fork to Moba (MOL Trains)

	Train Time	Highway Time	Total Time to Moba	Total Time to Onn
Average	10.31	3 57	14 28	11 42
Max	12 53	3 57	16 50	12 13
Min	9 36	3 57	13 33	11 14

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time to Moba	Total Time to Onn
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Caballo Rojo to Moba (MOL Trains)

	Train Time	Highway Time	Total Time to Moba	Total Time to Orin
Average	9 24	3 17	12 41	9 38
Max	13 35	3 17	16 52	10 38
Min	7 48	3 17	11 05	8 46

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time to Moba	Total Time to Orin
C0CRMMOL07AF-12	13 35	3 17	16 52	10 38
C0CRMMOL12AF-20	13 35	3 17	16 52	10 38
C0CRMMOL10AF-15	13 35	3 17	16 52	10 38
C0CRMMOL07AF-13	9 13	3 17	12 29	9 50
C0CRMMOL09AF-15	9 06	3 17	12 23	9 50
C0CRMMOL11AF-17	9 02	3 17	12 19	9 56
C0CRMMOL06AF-10	8 44	3 17	11 61	9 24
C0CRMMOL08AF-13	8 10	3 17	11 27	9 12
C0CRMMOL13AF-22	7 53	3 17	11 10	8 48
C0CRMMOL05AF-09	7 48	3 17	11 05	8 46

Campbell Sub Outlaw Trains
Highway and Train Transit
Campbell Sub Mines to Orin Yard

Eagle Butte to Orin

	Train Time	Highway Time	Total Time
Average	8:09	3.57	12 06
Max	10 19	3:57	14 16
Min	6:45	3:57	10 42

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time
C0EBMMOL09AF-18	10:19	3 57	14.16
C0EBMNPJ47AF-16	10.04	3:57	14:01
C0EBMNPJ41AF-12	9:55	3 57	13:52
C0EBMPAP11AF-13	9 51	3 57	13:48
C0EBMNPJ50AF-18	9.46	3 57	13 43
C0EBMNPJ51AF-19	9 39	3 57	13:36
C0EBMNPJ46AF-15	9 28	3:57	13 25
C0EBMOKO07AF-19	9 18	3:57	13.15
C0EBMNPJ48AF-17	9 05	3:57	13.02
C0EBMNPJ40AF-12	9 03	3 57	13.00
C0EBMOKO06AF-15	8 55	3 57	12:52
C0EBMNPJ44AF-14	8 40	3 57	12.37
C0EBMPAP14AF-19	8 30	3 57	12 27
C0EBMNPJ49AF-17	8 21	3 57	12.18
C0EBMNPJ37AF-10	8 17	3 57	12 14
C0EBMNPJ39AF-12	8:13	3 57	12 10
C0EBMOKO04AF-09	8 12	3:57	12 09
C0EBMMOL10AF-20	8 10	3:57	12 07
C0EBMNPJ53AF-20	8 06	3:57	12:03
C0EBMNPJ50AFG-19	7 59	3:57	11:56
C0EBMNPJ52AF-19	7:54	3 57	11:51

C0EBMNPJ43AF-13	7:49	3.57	11:46
C0EBMNPJ38AF-11	7:46	3 57	11:43
C0EBMPAP12AF-14	7 45	3 57	11:42
C0EBMNPJ36AF-10	7 43	3 57	11 40
C0EBMPAP09AF-12	7·37	3:57	11 34
C0EBMPAP10AF-12	7 35	3:57	11 32
C0EBMPAP15AF-20	7 21	3.57	11 18
C0EBMNPJ42AF-13	7 19	3 57	11·16
C0EBMPAP13AF-15	7.16	3 57	11·13
C0EBMKBB01AF-10	7.08	3 57	11:05
C0EBMNPJ45AF-14	7.06	3 57	11:03
C0EBMNPJ55AF-21	6:58	3:57	10:55
C0EBMNPJ34AF-09	6:48	3:57	10:45
C0EBMPAP16AF-21	6:48	3:57	10:45
C0EBMNPJ54AF-20	6:47	3:57	10:44
C0EBMOKO05AF-12	6:46	3:57	10:43
C0EBMNPJ35AF-09	6:45	3:57	10:42
C0EBMNPJ41AFG-13	6:45	3:57	10:42

Rawhide to Orin

	Train Time	Highway Time	Total Time
Average	7:27	3·57	11 24
Max	8:00	3·57	11·57
Min	6 46	3 57	10:43

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time
C0RWMSLP06AF-15	8:00	3:57	11 57
C0RWMSLP04AF-11	7:52	3·57	11 49
C0RWMSLP07AF-19	7:28	3 57	11:25
C0RWMSLP05AF-12	7·07	3 57	11:04
C0RWMSLP08AF-21	6:46	3:57	10:43

Buckskin to Orin

	Train Time	Highway Time	Total Time
Average	8 32	3 57	12:29
Max	10 03	3 57	14:00
Min	10 03	3.57	14:00

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
C0BKMKBB08AF-09	7:56	3.57	11:53
C0BKMSLP07AF-14	7:56	3 57	11 53
C0BKMKBB10AF-15	7.48	3 57	11:45
C0BKMKBB09AF-11	7.28	3 57	11.25

Clovis Point to Orin

	Train Time	Highway Time	Total Time
Average	7.13	3:57	11.10
Max	7.36	3:57	11.33
Min	6:57	3:57	10 54

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time
C0CPMCDJ07AF-19	7 36	3:57	11:33
C0CPMCDJ06AF-15	7 07	3 57	11:04
C0CPMCDJ05AF-11	6:57	3:57	10:54

Dry Fork to Orin

	Train Time	Highway Time	Total Time
Average	7 45	3:57	11 42
Max	8:16	3:57	12 13
Min	7:17	3 57	11 14

Individual Train Transit Times

Train ID	Train Time	Highway Time	Total Time
[illegible]	[illegible]	[illegible]	[illegible]
C0DFMMOL14AF-16	8:00	3:57	11:57
C0DFMMOL12AF-12	7:55	3:57	11:52
C0DFMMOL13AF-14	7:45	3:57	11:42
C0DFMMOL16AF-20	7:38	3:57	11:35
C0DFMMOL11AF-11	7 21	3:57	11.18
C0DFMMOL10AF-09	7 17	3:57	11.14

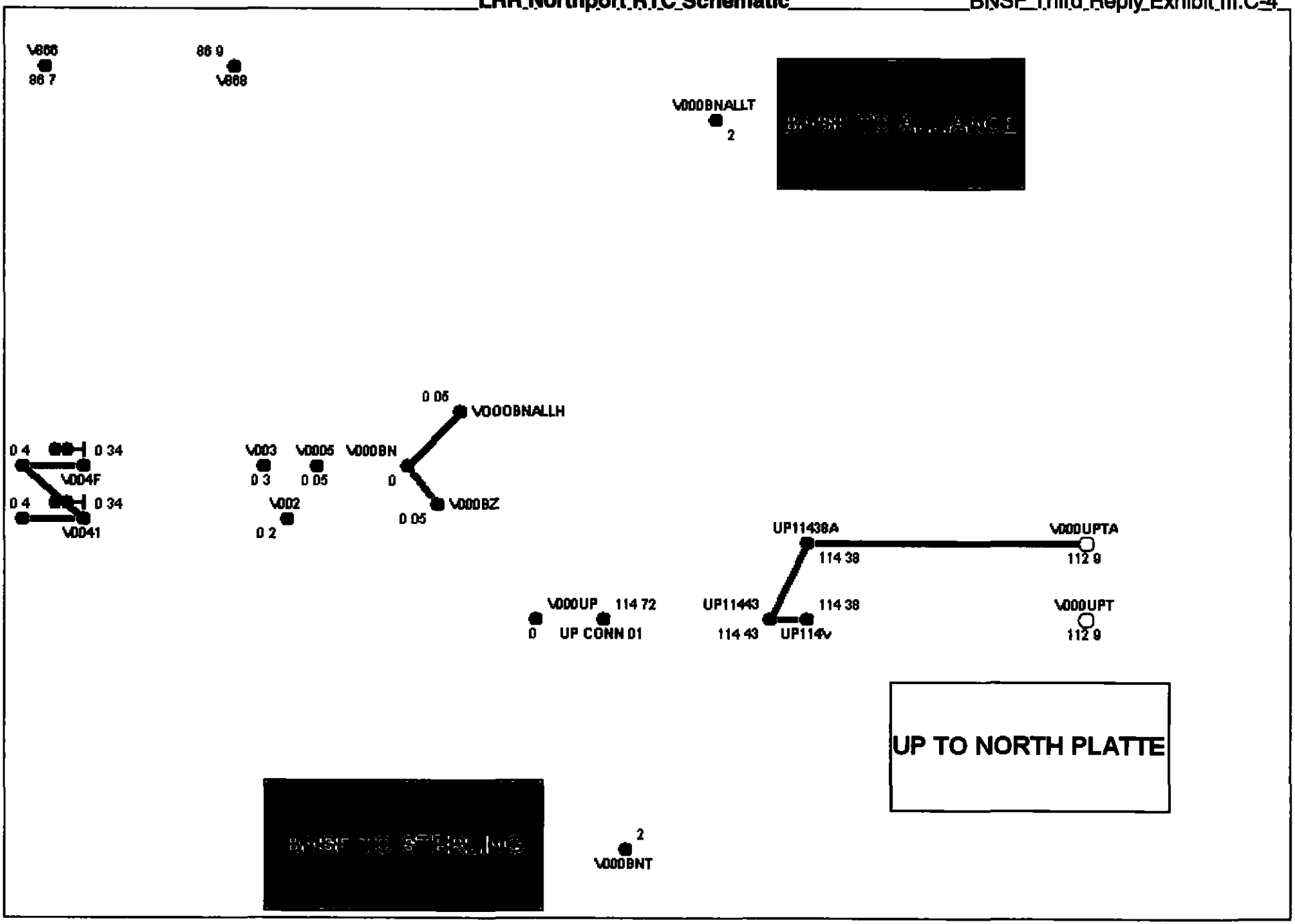

V866
86 7
86 9
V868
V000BNALLT
2
[redacted]
0 05
V000BNALLH
0 4
0 34
V004F
0 4
0 34
V0041
V003
0 3
V0005
0 05
V000BN
0
V000BZ
0 05
V002
0 2
UP11436A
114 38
V000UPTA
112 9
V000UP
114 72
0
UP CONN 01
UP11443
114 38
114 43
UP114v
V000UPT
112 9
UP TO NORTH PLATTE
[redacted]
2
V000BNT

Exhibit Redacted

Exhibit Redacted

Exhibit Redacted

Exhibit Redacted

Verified Statement of Robert S. Hamada and Rajiv B. Gokhale

I. Introduction and Assignment

1. My name is Robert S. Hamada. I am the Edward Eagle Brown Distinguished Service Professor Emeritus of Finance and former Dean at The University of Chicago Graduate School of Business ("GSB") I have served as an Instructor, Assistant Professor, Associate Professor, and Professor of Finance at the GSB since 1966. I also have served in other positions at the GSB, including Director of the Center for Research in Security Prices (1980 – 1985), Deputy Dean for the Faculty (1985 – 1990), and Dean (1993 – 2001). While at the GSB, I have taught extensively on the subjects of corporate finance and corporate strategy. I have serve(d) on 11 business Boards of Directors and numerous non-profit Boards. My *curriculum vitae*, which also contains a list of my publications, is attached hereto as Exhibit A.

2. My name is Rajiv B Gokhale. I am a Senior Vice President of Compass Lexecon, a consulting firm that specializes in the application of economics to a variety of legal and regulatory issues. I have an MBA from the University of Chicago I have specialized in the areas of financial economics and business valuation and my experience covers a wide array of industries. My *curriculum vitae* is attached as Exhibit B.

3. In a decision served in the current matter on February 29, 2008, the Surface Transportation Board ("Board") directed the concerned parties to submit evidence regarding the propriety of re-stating the railroad industry's cost of capital for 2002 through 2005. The Board stated that for purposes of estimating a stand-alone railroad's ("SARR") cost to raise capital, "the longstanding practice in SAC cases is to apply the cost of capital for the rail industry as published annually by the Board, using an average of the figures starting with the year in which construction of a SARR would have begun through the most recently available year."[1] The Board noted that it had recently changed its procedures for calculating the industry cost of equity capital—by using a

1. *Western Fuels Association, Inc v BNSF Railway Co.*, STB Docket No. 42088, slip op. at 6.

CAPM model instead of a single-stage DCF mode—and that this change had led the complainants in this case to argue that the cost of capital figures the Board had previously published and used in its DCF model from 2002 through 2005 should be recalculated using the new CAPM methodology.

4. Most investment decisions are made in the context of future expectations; therefore, companies and investors must evaluate risks and uncertainties they expect they will encounter in the future. In this context, we have not been asked to comment on such before the fact, i e , *ex ante*, decisions regarding the cost of capital Rather, we have been asked to review and opine on whether it is appropriate to adopt a retroactive, i.e., *ex post* calculation of the cost of capital using the current Board's CAPM methodology, for the past years 2002 through 2005, instead of applying the cost of capital that was actually calculated and published by the Board for those years using the single stage DCF methodology that was the Board's preferred approach for determining the cost of equity capital at that time.

5. We have identified three reasons not to make *ex post* adjustments to the cost of capital the Board had previously determined was appropriate for the years 2002 to 2005:

- *Ex post* adjustments to the cost of capital will decrease predictability regarding the regulatory return on railroad investments, and therefore could decrease railroads' and investors' willingness to undertake future investments.
- It is unclear whether the Board would have picked the numerous micro practical inputs to the CAPM methodology in the same manner it decided to in 2006, had it decided to use the CAPM at an earlier point in time.
- Allowing a select group of claimants to reopen past decisions risks favoring a select category of litigants and introduces asymmetry into the system. Allowing fairness and symmetry to all concerned parties so that each can reopen past decisions will risk chaos in the regulatory system.

II. *Ex Post* Adjustments to the Cost of Capital will Decrease Predictability Regarding the Regulatory Return on Railroad Investments, and Therefore Could Decrease Railroads' and Investors' Willingness to Undertake Future Investments

6. Companies and investors require an "adequate" return on their investments—that is, revenues that cover operating expenses and depreciation, and yields a rate of return to investors (equity and debt holders) that equals the rate that investors expect—that is, to undertake the risk of investing in those companies. A company's cost of capital, i.e., the return investors expect for bearing the risk of investing in the company, is not "readily observable." Different models attempt to best measure the "true" cost of capital.

7 The rate of return that investors expect to receive is a function of the nature of the company's assets and investments. The cost of capital, i e , the rate of return demanded by investors, is determined by how the capital is used—the riskier a company's assets and investments, the higher the rate of return investors will expect to compensate them for bearing that risk. In regulated industries, the rate demanded by investors is still a function of the nature of the industry's assets—but the regulatory process can be, and is, an important part of investors' perception of investment risk.

8. Based on the determination of the cost of the capital by the Board, which affects expectations of future revenues, railroads and investors determine whether or not they will undertake railroad investments. Investors understand that the actual return they receive may be different from what they expected when they undertook the investment for a host of reasons—such as changes in economic and business conditions. They may also take into account the fact that regulatory conditions may change in the future—thereby affecting future decisions of whether or not to undertake additional investments.

9. However, investors likely would take a dim view of *ex post* adjustments—especially in a case such as this where the regulatory body has repeatedly announced its belief in the importance of predictability regarding the models used to estimate the cost of capital. All else equal, investors will be better able to assess the risk of investing in a regulated industry if the regulatory process is transparent and less prone to arbitrary *ex post* or "after the fact" adjustments.

The Board has Repeatedly Recognized that Predictability in Calculating the Allowable Regulatory Return is Important to Railroads and Investors

10. The Board has acknowledged that the true cost of capital is somewhat unobservable, and that irrespective of the model employed to estimate the cost of capital (e.g., DCF or CAPM), the inputs remain somewhat uncertain at any given point in time because of the inherent difficulty of measuring these inputs. For example, in its DCF approach, the Board relied on IBES reports of analysts' expectations regarding expected growth rates over the short-term, while recognizing that analysts' shorter-term growth estimates may not necessarily be the same as investors' longer-term growth expectations over the short or long-term. Likewise, the breadth and volume of discussion in response to the Board's solicitation of comments on determining the inputs to a CAPM model—such as the ß, the market risk premium and the risk-free rate—demonstrates that there are several possible ways to measure each one of the inputs in a CAPM model

11. Despite the uncertainty regarding the inputs to either model, the Board has repeatedly concluded that the benefits of predictability regarding the process (i.e., the model to be employed) outweigh the risk that the uncertainty regarding some inputs causes the estimates to be imprecise. For example, the Board has concluded that "predictability is particularly important with regard to the cost of capital, as this calculation reflects the return the Board will permit carriers to earn on their capital investments and will therefore influence their investment decisions."[2]

12 Similarly, when considering how to adjust SAC models for productivity gains of a hypothetical SARR, the Board decided that the "benefits of fixing a reasonable (if rough) methodology for forecasting future productivity of a SARR outweighs the substantial costs to the parties and unlikely benefits of quantifying a more precise estimate in an individual proceeding," because "at some point, an elaborate and expensive search for a more precise estimate of future productivity must give way to the need for a uniform, manageable approach." The Board further concluded that "predictability in regulation is an important goal" because "it serves the public good by

2. STB Ex Parte NO. 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital*, January 17, 2008 ("Ex Parte No. 664") at 11-12.

permitting carriers to conform their conduct to a set of rules and assisting captive shippers in judging whether a particular rate could be challenged as unreasonably high."[3]

13. When the Board decided in 2005 that it would continue to use a DCF model to measure the railroad industry's cost of equity capital, and not shift to a CAPM model before conducting further inquiry on the relative merits of the DCF model and the CAPM, the Board stated that "there is a norm of regularity in government conduct that presumes an agency's duties are best carried out by adhering to the settled rule. This presumption is particularly strong where ... a party seeks to replace an established methodology with one the agency has previously rejected."[4]

14. The Board reaffirmed these insights in its decision to use CAPM to calculate the industry's cost of capital. In this context, the Board rejected a suggestion by the railroads that the Board consider a range of estimates and adopt a point somewhere in the middle to upper end of that range. The Board explained that they believed "the better approach is to select a reasonable CAPM methodology to apply, which will provide a transparent and stable method to estimate this amorphous component of the cost of capital." Building on its conclusion in Ex Parte No. 657 that "predictability in regulation is an important goal," the Board further explained in Ex Parte No. 664 that "predictability is particularly important with regard to the cost of capital, as this calculation reflects the return the Board will permit carriers to earn on their capital investments and will therefore influence their investment decisions."[5]

15. Changing the cost of capital that had been previously determined, published, and used—by the Board, by railroads and by investors—contradicts the Boards' desire to ensure predictability regarding the cost of capital

3. STB Ex Parte No. 657 (Sub No. 1), *Major Issues in Rail Rate*; October 30, 2006 at 46.
4. STB Ex Parte No 558 (Sub-No. 9), *Railroad Cost of Capital—2005*; September 15, 2006 at 7.
5. Ex Parte No 664 at 11-12

16 It is worth noting that the Board's determination of the cost of capital—whatever the model used—is an "integral component of many other decisions the Board must make and is also relied upon by other parties for use in pending matters."[6]

- The Board rejected WCTL's suggestion that it consider the "appropriate approach anew in each annual cost-of-capital determination." The Board explained that it preferred a "fixed and transparent methodology upon which railroads and the public can rely."[7]
- Similarly, when faced with WCTL's request in 2005 that it replace the DCF model with a CAPM model to estimate the railroad industry's equity cost of capital, the Board could have "placed on hold all proceedings before it in which the cost-of-capital figure would normally be applied. But that course would have substantially impaired the Board from doing its business, as the cost of capital is a component in a host of regulatory proceedings before the Board."[8]

17. *Ex post* regulatory changes that affect the returns to investments already undertaken—investments which from the investors' perspective are "sunk" and cannot be easily undone— introduce an arbitrariness to the process and penalize (if the cost of capital is *ex post* reduced) investors on the investments they have already made, like a bait and switch.

II. It is Unclear Whether the Board Would Have Picked the Numerous Micro Practical Inputs to the CAPM Methodology in the Same Manner It Decided to in 2006, Had It Decided to Use the CAPM at an Earlier Point in Time

18. Prior to 2006, the Board had been asked to consider, and had considered, whether shortcomings in the DCF model—such as the mismatch in the 5-year growth rate used in the DCF model and the long-run growth potential of the economy as a whole, and the assumption of a constant dividend yield—justify using alternative models. However, it was only in 2006 that the Board decided to stop using a DCF model and to start using a CAPM model to estimate the cost of equity capital.

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6. Joint Brief of Respondents Surface Transportation Board and United States of America; Final Brief; December 14, 2007 at 15.
7. Joint Brief of Respondents Surface Transportation Board and United States of America; Final Brief; December 14, 2007 at 17.
8. Joint Brief of Respondents Surface Transportation Board and United States of America, Final Brief; December 14, 2007 at 40.

19 The Board decided to use the CAPM model to estimate the cost of equity capital only on an *ex ante*, or forward looking, basis. It did not conclude, nor did it consider, that the CAPM should be applied retroactively. Therefore, the Board did not ask for any input on how such a model would be applied retroactively and how inputs to the CAPM model should be determined, should the model be applied retroactively

20 In its deliberations regarding the use of a CAPM model, the Board was presented with evidence showing a fair amount of uncertainty regarding the inputs to the CAPM. Academics and valuation experts have debated, and continue to debate, how best to measure these inputs. Some of the examples of micro practical inputs where debates persist on how to measure them are:

- The risk-free rate While academics and valuation experts generally agree that the yield on U.S. Government borrowings is the best proxy for a risk free rate, they do not agree on what term to use—whether it should be the short-term, medium-term or long-term securities.
- The ß. ßs can be calculated using daily, weekly or monthly returns, over different time frames (i.e., the number of years of data used in calculating the ß). ßs can be estimated for each railroad, or for the industry on average (based on the returns to a portfolio of railroad companies.)
- The risk premium relative to a risk-free rate (i.e., the equity risk premium). This premium can be measured as an arithmetic or geometric average of historical returns. It can also vary depending on the market index used.

Theoretically, one could try every possible combination/permutation over the range of possible values for these variables.

21. An example of the debate over a micro practical input is the debate over how to measure the equity risk premium: still not fully resolved—especially around the late 1990s/early 2000s when many were proposing that the equity risk premium was lower relative to earlier times.

- Professor Bradford Cornell argued in his textbook that the equity risk premium had decreased by the late 1990s to 3.5-5.5% over treasury bonds from the historical 7.4%. [9]
- Others argued that the equity risk premium was even lower. For example, in their book *Dow 36,000*, Glassman and Hassett surmised that the equity

9. Cornell, Bradford. 1999. *The Equity Risk Premium*, John Wiley & Sons, Inc.

bull market of the late 1990s had become possible because investors had figured out that the equity premium was unnecessary.[10]

- Others such as Professors Richard Brealey, Stewart Myers and George Constantinides argued that the equity risk premium was higher than 6%.[11]
- Around this time, Ibbotson continued reporting the historical arithmetic risk premia of 7 4-8.5% over treasury bonds—well above the 3.5-5 5% proposed by Professor Cornell.[12]

In light of these divergent views on the best measure of the equity risk premium, it is unclear, based on the Board's adoption of the CAPM in 2006, how it would have chosen to calculate the equity risk premium had it considered the issue in the period 2002 to 2005—and especially if it had done so earlier.

22. It is important to remember that the cost of capital is essentially a forward-looking concept—it is the rate of return investors expect to earn in the future for bearing the risk of the current investment. As the preceding discussion explains, a slight variation in the micro inputs can lead to significant differences in a CAPM-based estimate of the cost of equity capital. There is no basis to assume *ex post* that the cost of equity capital using a model and inputs that the Board has determined are appropriate now—with no consideration for whether the same inputs would have been appropriate in earlier periods—would be applicable to earlier years, and whether the current models and inputs would yield a cost of capital that is consistent with investors' expectations at the earlier time.

23. Accepting complainants' request to retroactively use the CAPM model to estimate the cost of equity capital for the years 2002 to 2005 assumes that the Board would have· i) adopted the CAPM model for years prior to the time the Board actually considered, and decided not to adopt, the CAPM model, and ii) decided on calculating inputs to the model exactly as it did in 2006.

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10. Glassman, James K., & Kevin A. Hassett. 1999. *Dow 36,000 The New Strategy for Profiting from the Coming Rise in the Stock Market*, Random House.
11 Brealey, Richard A. and Myers, Stewart C. *Principles of Corporate Finance*. Sixth Edition at 160.
Constantinides, George M. Rational Asset Prices. The Journal of Finance, Vol. LVII, No. 4, August 2002, 1567-1591.
12. *Stocks, Bonds, Bills and Inflation*. Ibbotson Associates/Morningstar. 2000 Yearbook through 2005 Yearbook.

IV. Allowing a Select Group of Claimants to Reopen Past Decisions Risks Favoring a Select Category of Litigants and Introduces Asymmetry Into the System. Allowing Fairness and Symmetry to All Concerned Parties so that Each Can Reopen Past Decisions Will Risk Chaos in the Regulatory System

24. The Board has asked whether it would be appropriate to modify past cost of capital decisions for the purpose of addressing the rate reasonableness claims raised in this case The complainants appear to want to take advantage of the fact that the CAPM rate of return, determined using the current CAPM model and inputs, may be lower from 2002 through 2005 than that determined by the Board in the actual cost of capital decisions using the single-stage DCF model.

25 A decision to change retroactively the cost of capital for certain past years in the context of individual rate cases would favor a select category of litigants and would introduce asymmetry and uncertainty into the regulatory process. The Board's cost of capital determinations are used in a variety of regulatory decisions and they also influence investment decisions in the real world The Board should not allow different cost of capital assumptions to be used by different parties in different contexts

26. A Board decision to allow shippers to benefit from different cost of capital assumptions in rate cases would likely lead to an asymmetric, unpredictable and unfair regulatory process. The Board's determination of the cost of capital is applied across all railroads, and across all shippers. Allowing only this set of shippers, and not all others, to reopen proceedings will favor only this set of shippers. On the other hand, allowing all concerned parties to reopen historical proceedings runs the risk of producing an overwhelming amount of *ex post* analyses and could severely and adversely affect investors' expectations of future predictability.

V. Conclusion

27. To repeat, we have identified three reasons not to make *ex post* adjustments to the 2002 to 2005 costs of capital the Board had previously determined, and published, was appropriate:

i) *Ex post* adjustments to the cost of capital will decrease predictability regarding the regulatory return on railroad investments, and therefore could decrease railroads' and investors' willingness to undertake future investments.

ii) It is unclear whether the Board would have picked the numerous micro practical inputs to the CAPM methodology in the same manner it decided to in 2006, had it decided to use the CAPM at an earlier point in time.

iii) Allowing a select group of claimants to reopen past decisions risks favoring a select category of litigants and introduces asymmetry into the system. Allowing fairness and symmetry to all concerned parties so that each can reopen past decisions will risk chaos in the regulatory system.

EXHIBIT A

Spring, 2008

VITA

ROBERT S. HAMADA

Birthdate: August 17, 1937

Birthplace: San Francisco, California

Office Address:
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University of Chicago
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Home Address
50 East Bellevue Place, # 2305
Chicago, Illinois 60611

Wife Danielle
Children: Matthew (born: 1967)
Janet (born 1968)

Education

1963-1966	*Massachusetts Institute of Technology* Ph.D in Finance (completed in 1969) at the Sloan School of Management Concentration in Business and Public Finance, Economics Thesis: "Portfolio Analysis and Corporation Finance." Other major areas of investigation The Empirical Incidence of the Corporation Income Tax in a Neoclassical Growth Economy
1959-1961	*Massachusetts Institute of Technology* S M (completed in 1961) at the Sloan School of Management. Thesis: "An Analysis of Diffusion Indexes of Insiders' Transactions."
1955-1959	*Yale University* B E. in Chemical Engineering (completed in 1959)

Employment

8/2003-present	Edward Eagle Brown Distinguished Service Professor Emeritus of Finance, Graduate School of Business, University of Chicago
1993-7/2003	Edward Eagle Brown Distinguished Service Professor of Finance, Graduate School of Business, University of Chicago
7/2001 – 9/2002	Chief Executive Officer, Merchants' Exchange LLC, Chicago, Illinois
1993-2001	Dean, Graduate School of Business, University of Chicago
1993	Director, Center for International Business Education and Research, Graduate School of Business, University of Chicago
1989-1993	Edward Eagle Brown Professor of Finance, Graduate School of Business, University of Chicago

1985-1990	Deputy Dean for the Faculty, Graduate School of Business, University of Chicago
1980-1985	Director, Center for Research in Security Prices, Graduate School of Business, University of Chicago
1966-1989	Instructor, Assistant Professor, Associate Professor, and Professor of Finance, Graduate School of Business, University of Chicago
1979-1980	Baring Brothers Visiting Professor of Finance (September through August), London Graduate School of Business Studies, London, England
1976	Leslie Wong Distinguished Faculty Summer Research Fellow, University of British Columbia, Vancouver, Canada
1973	Visiting Senior Lecturer in Finance (January through June), London Graduate School of Business Studies, London, England
1971-1972	Visiting Associate Professor of Finance (September through June), University of Washington, Seattle, Washington
1971	Visiting Associate Professor of Finance (July through August), University of California at Los Angeles
1961-1963	Economic and Financial Analyst, Sun Oil Company, Philadelphia, Pennsylvania. Assignments included: acquisition and disposition studies, capital budgeting, mathematical programming, and exponential smoothing models

Teaching, Research, Administrative, and Consulting Interests

Teaching areas included. Corporation Finance, Business Policy and Strategy, Portfolio and Security Analyses, Capital Markets, Applications of Financial Theory, Public Finance, Financing of Nonprofit Organizations, and Small Business Problems. Received the first "Outstanding Teacher Award" (1970) and the McKinsey Award for Excellence in Teaching (1981), Graduate School of Business, University of Chicago, *Fortune* Magazine's 8 Outstanding U S Business School Professors (January 1982).

Research interests in effects of risk and taxes on the financing and capital budgeting decisions within the firm, on portfolio selection, and on the pricing of multiperiod capital assets; interface between finance, corporate strategy, and international business Listed in Blaug, M. *Who's Who in Economics A Biographical Dictionary of Major Economists 1700-1981*, MIT Press, 1982, 1986

Administrative duties included: Dean, Graduate School of Business, University of Chicago (1993-2001), Director, Center for International Business Education and Research (1993); Deputy Dean, Graduate School of Business, University of Chicago (1985-1990), Director of Center for Research in Security Prices (1980-1985), finance faculty coordinator for Graduate School of Business, University of Chicago (1975-1985) Committee work included. Chair, University Committee on Retirement (1993-1999), Standing Committee on Retirement Issues (1993-1999); ARCH Development Corporation (1993-2000); Center for Health Administration Studies (CHAS) Oversight Committee (1993-1995); Chairman, Task Force on Faculty Retirement (1991-1992)

Consulting activities included associate editor, *Journal of Finance* (1974-1977, 1981-1983), associate editor, *Journal of Financial and Quantitative Analysis* (1970-1983); referee for 16 journals, consulting editor in finance, Scott Foresman & Co., advisory board, *Journal of Applied Corporate Finance*, State of Illinois (framing and implementing the Illinois state income tax), City of Chicago Economic Development Commission; Brown Brothers Harriman and Company; Harris Trust and Savings Bank; Continental Illinois Bank; First Chicago; Booz Allen; Touche Ross; FMC Corporation; Bradford National Corporation, UOP Inc.; Timken, and other firms Expert witness for Mayer, Brown and Platt, Kirkland and Ellis; Jenner & Block, White and Case; Arnold & Porter; Winston & Strawn, etc , speaker at innumerable conferences and universities

Member of the Board of Directors (or Trustees) Federal Signal Corporation (10/2003-present); Fleming (2001-2004); Merchants' Exchange LLC (7/2001-9/2002), National Bureau of Economic Research (NBER) (1983-present), A. M Castle & Co (1984-present), Northern Trust Corporation (1988-2005), Chicago Board of Trade (public director, 1989-1992, 1993-1996, 1997-2000); Flying Food Group, Inc (1992-present); WTTW Channel 11 (1996-present), Mayor Daley's Northerly Island Park Planning Committee (1996-1998); Riverwood International Corporation (1992-1993); the reorganized Manville Corporation (1988-1993); INFORMS (TIMS) (1986-1999); Teachers Insurance and Annuity Association (TIAA) (1984-1988), Van Straaten Chemical Company (1982-acquired in 1987); elected member of the Board of Directors, The American Finance Association (1982-1985), University of Chicago Laboratory Schools (1984-1991); Hyde Park Neighborhood Club (1970-present).

Member of the Advisory Committee (Board) of: founding member of the Advisory Board of the College of Management of National Taiwan University (1998-2000); the *Encyclopedia of American Business* advisory committee (1997-present); EVA® Institute.

Member of the Investments (or Finance) Committee of the Board of: INFORMS (TIMS) (1995-1999), National Bureau of Economic Research (1985-1995); American Economic Association (1988-1990, 1991-1993, 1997-1999)

Member of: American Economic Association; American Finance Association, Econometric Society, The Bond Club of Chicago; Chicago Committee of The Chicago Council of Foreign Relations; Commercial Club of Chicago; The Economic Club of Chicago; The Executives' Club of Chicago, Risk Management Center of Chicago

Listed in Marquis' *Who's Who in America; Who's Who in the World; Who's Who in Finance and Industry, Who's Who in the Midwest, Who's Who in Science and Engineering, Who's Who in American Education.*

Publications and Working Papers

"Portfolio Analysis, Market Equilibrium and Corporation Finance," *Journal of Finance*, March, 1969, reprinted in Stephen Archer and Charles A D'Ambrosio (editors), *The Theory of Business Finance A Book of Readings*, Macmillan Publishing Co., 1976.

"The Effects of Leverage and Corporate Taxes on the Shareholders of Regulated Utilities " In Trebing and Howard (editors), *Rate of Return under Regulation New Directions and Perspectives*, Michigan State University, 1969.

"Investment Decision with a General Equilibrium Mean-Variance Approach," *Quarterly Journal of Economics*, November 1971.

"The Effect of the Firm's Capital Structure on the Systematic Risk of Common Stocks," *Journal of Finance*, May 1972, reprinted in: James L. Bicksler (editor), *Capital Market Equilibrium and Efficiency, Implications for Accounting, Financial and Portfolio Decision-Making*, D C. Heath and Company, 1975; and reprinted in Stewart C Myers (editor), *Modern Development in Financial Management*, the Dryden Press, 1976.

"Calculation of Present Value: The Multiperiod Case with Explicit Adjustment for Risk," *Proceedings of the Seminar on the Analysis of Security Prices*, November 1975.

"Super Premium Security Prices and Optimal Corporate Financing Decision· Discussion," *Journal of Finance*, May 1976.

"Corporate Finance and the Capital Asset Pricing Model Discussion," *Journal of Finance*, May 1977

"Financial Theory and Taxation in an Inflationary World: Some Public Policy Issues," *Journal of Finance*, May 1979

"Taxes and Corporate Financial Management," (with Myron Scholes), in Altman, E. and Subrahmanyan, M , (editors), *Recent Advances in Corporate Finance*, Irwin Press, 1985

"Differential Taxes and the Structure of Equilibrium Rates of Return: Managerial Implications and Remaining Conundrums," in *Advances in Financial Planning and Forecasting*, Vol. II, 1986

"Making Statistics More Effective in Schools of Business: Interdisciplinary Cooperation," (with James M Patell, Richard Staelin, and William E Wecker), *Proceedings of the Business and Economics Statistics Section--American Statistical Association*, 1986.

"Problems and Opportunities for Statistics in Accounting, Marketing, Finance, and Production," (with James M. Patell, Richard Staelin, and William E. Wecker), *Journal of Business and Economic Statistics*, 1987.

EXHIBIT B

RAJIV B. GOKHALE

July 2008

Senior Vice President

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CONSULTING EXPERIENCE

Compass Lexecon (formerly Lexecon), (February 1992 to August 1998, April 2000 to Present)
Senior Vice President, 1/1/06 – Present
Vice President, 1/1/02 – 1/1/06
Economist, 02/27/92-08/14/98, 04/01/01 – 12/31/01

SCA Consulting, Principal (September 1998 to March 2000)

PROFESSIONAL & ACADEMIC EXPERIENCE

University of Chicago, Graduate School of Business, Research Assistant, Merger & Acquisition Analysis (April 1991 to April 1992).

Skidmore, Owings & Merrill, (Architects & Engineers), Associate (February 1986 to September 1990)

EDUCATION & PROFESSIONAL QUALIFICATIONS

University of Chicago, Graduate School of Business, Chicago, Illinois

Masters Degree in Business Administration, (With Honor's), April 1992

Vanderbilt University, School of Engineering, Nashville, Tennessee

Masters Degree in Mechanical Engineering, December 1985

University of Bombay, School of Engineering, Bombay, India

Bachelors Degree in Mechanical Engineering, June 1983

FIELDS OF SPECIALIZATION

Gokhale has developed an expertise in analyzing and identifying the determinants of corporate and business value. Gokhale's assignments cover a wide range of applications ranging from business valuations, damage calculations, analysis of expected efficiencies from mergers and analysis of the source and viability of entry into different industries

Gokhale's valuation assignments include

- Startup internet incubator
- Cable television network
- Movie studio
- Department stores
- Other retail establishments (book stores, auto parts stores, etc)
- Home healthcare provider
- Integrated steel manufacturer
- Financial institutions
- Venture capitalist focused on biotech investments
- Cigarette manufacturer

Gokhale's experience in damage calculations include

- Dialysis provider's buyout of minority shareholders
- Investor in partnership designed to invest in corporate debt
- Proposed transaction involving European cable assets
- Billing services to provider of wireless voice and data services
- Provider of tax consulting services
- Agreement to jointly market insurance products to bank and credit union customers

Key assignments in the last two years include

- Consulting expert to parent of dialysis provider
  Consulting expert to provider of outpatient dialysis services in litigation regarding purchase price in going private transaction Analyzed plaintiffs' experts' reports, identified flaws, prepared alternative analyses supporting repurchase price.
- Valued proposed changes in business practices by health insurer
  Identified changes with high value to insurer and physicians Developed metrics to measure and demonstrate commitment and progress Estimate used in settlement talks in pending litigation
- Consulting expert to cigarette manufacturer
  Assisted outside counsel in analyzing and refuting plaintiffs' claims regarding profitability of US operations. Built models to value US operations and to value impact of contingent liabilities
- Assisted in validating valuation of asbestos liabilities.
  Assisted outside counsel and testifying expert in analyzing and refuting plaintiffs' experts' analysis of expected value of future asbestos liabilities and discount rates used in valuation

Gokhale also has extensive experience in consulting to companies on issues regarding development and implementation of business strategy, incentive plans, and identification of performance metrics at the corporate and business unit level Sample assignments include

- Assisting an integrated steel manufacturer in developing targets for return on capital and developing an operating plan to achieve the desired return Also assisted in developing performance measures at the corporate and business unit level
- Assisting a major consumer products company in adopting a strategic change from being a product focused company to a consumer focused company
- Assisting an internal temporary placement company in identifying strategic issues for six major regions that would increase corporate value Also assisted in developing performance metrics

TESTIMONY

Deposition of Rajiv B. Gokhale in Re Coram Healthcare Corp and Coram, Inc , Debtors, United States Bankruptcy Court for the District of Delaware, Case No. 00-3299 Through 00-3300, (MFW) (March 29, 2004)

Expert Report of Rajiv B. Gokhale and Daniel R Fischel in Re: Hideji Jumbo Tanaka v Cerberus Far East Management, L L C , et al., AAA Case No 50 T 116 00284 03, (October 17, 2005)

Expert Report of Rajiv B. Gokhale in Re Betty Lou Richards vs United States of America, Case No. 05 CV 2044 GTV, (October 17, 2005)

Testimony of Rajiv B Gokhale in Re Hideji Jumbo Tanaka v Cerberus Far East Management, L L C , et al , AAA Case No 50 T 116 00284 03, (December 14-15, 2005)

Expert Report of Rajiv B Gokhale and David B Gross Copying Medical Records An Analysis of the Release of Information Industry (November 11, 2004 Updated to Include Data on 2005 and 2006 Expense, April 10, 2007)

Expert Report of Rajiv B Gokhale in Re: Robert A Knarr, as Shareholder Representative on Behalf of the Shareholders of Cryogen, Inc., v American Medical Systems, Inc., and Charlie Tribie, William Rutan, Jayne Little, Steve Kemper, Leon Hirsch, Robert Knarr & JHK Investments, LLC, Case No 51 489Y 00421 06, (May 24, 2007)

Deposition of Rajiv B Gokhale in Re: Robert A Knarr, as Shareholder Representative on Behalf of the Shareholders of Cryogen, Inc , v American Medical Systems, Inc , and Charlie Tribie, William Rutan, Jayne Little, Steve Kemper, Leon Hirsch, Robert Knarr & JHK Investments, LLC, Case No. 51 489Y 00421 06, (June 19, 2007)

Expert Report of Rajiv B Gokhale in The Arbitration of Radian International LLC, The Lebanese Company For the Development and Reconstruction Of Beirut Central District, S A L ("Solidere") and URS Corporation, Case No 14208/EC (C-14236/EC), (July 13, 2007)

Testimony of Rajiv B Gokhale in Re. Robert A. Knarr, as Shareholder Representative on Behalf of the Shareholders of Cryogen, Inc., v American Medical Systems, Inc , and Charlie Tribie, William Rutan, Jayne Little, Steve Kemper, Leon Hirsch, Robert Knarr & JHK Investments, LLC, Case No. 51 489Y 00421 06, (July 25, 2007)

Reply Expert Report of Rajiv B. Gokhale in The Arbitration of Radian International LLC, The Lebanese Company For the Development and Reconstruction Of Beirut Central District, S.A.L ("Solidere") and URS Corporation, Case No. 14208/EC (C-14236/EC), (October 8, 2007)

Expert Report of Rajiv B Gokhale, Robert Blattberg, Richard Cooper and Roman Weil. The Analysis of the value of intangible property owned by [taxpayer] and associated buy in payments related to cost sharing agreements, (November 30, 2007) Retained by the Internal Revenue Service Not permitted to disclose identity of taxpayer.

Expert Report of Rajiv B. Gokhale and David Ross, Loral Space & Communications Inc Consolidated Litigation, Civil Action No. 2808-VCS, (January 21, 2008)

Deposition of Rajiv B. Gokhale, Loral Space & Communications Inc. Consolidated Litigation, Civil Action No. 2808-VCS, (February 12, 2008)

Declaration of Rajiv B. Gokhale, September 11 Litigation, Civil Action No 21 MC 101 AKH, (June 20, 2008)

Executed on July 1, 2008

Robert S. Hamada

Rajiv B. Gokhale

Exhibit III.H-1 is BNSF TSR Electronic Workpaper

"Exhibit_III-H-1 FTI OATC D.xls"

The workpaper is designated Highly Confidential.

WFA Base Case (Exh. III-H-1) with BNSF Reroute Revenue Adjustment

Year	WFA Revenue Requirements	WFA Forecast Revenues	Overpayments (Shortfalls)	Reroute Revenue Adjustment	Adjusted Overpayments (Shortfalls)
2004	$44.6	$58 3	$13.7	($12 7)	$1 1
2005	183.3	236 8	53.4	(46 2)	7.2
2006	186.8	250 6	63.7	(49.4)	14.4
2007	190.2	259.7	69.4	(49 2)	20 3
2008	193.1	262.3	69.2	(49 3)	19 9
2009	199.8	274.2	74.3	(49.5)	24.8
2010	202.8	277.0	74.2	(49.9)	24.3
2011	205.9	281.9	76.0	(50.8)	25.2
2012	209.9	287 9	78.1	(51.8)	26 3
2013	214 5	294.7	80 1	(52.8)	27 3
2014	219 0	299.8	80.8	(53.7)	27.0
2015	221 9	299.1	77.2	(52 6)	24.6
2016	227.4	307.4	80 0	(54.6)	25.4
2017	233.9	319.1	85 1	(57.0)	28 1
2018	239.9	330.4	90.6	(59 4)	31.2
2019	245.3	339.4	94.1	(61.4)	32.7
2020	251.1	348 8	97.8	(63.3)	34 5
2021	257.0	359.5	102.5	(65 8)	36.7
2022	262.8	368.2	105.4	(67 5)	37.9
2023	268.7	378 4	109.7	(69 8)	39.9
2024	205.5	291.9	86 4	(54.4)	31 9
Cumulative Net Present Value			**$774.4**		**$237.3**

Source: "Exhibit III H-2 p1 xls"

WFA Base Case (Exh. III-H-1) with BNSF Reroute Revenue Adjustment and BNSF ATC Revenues

Year	WFA Revenue Requirements	BNSF Forecast Revenues	Overpayments (Shortfalls)	Reroute Revenue Adjustment	Adjusted Overpayments (Shortfalls)
2004	$44.6	$54.6	$10.0	($12 6)	($2 6)
2005	183.3	221.2	37.9	(45.9)	(8.0)
2006	186.8	234.3	47.4	(49.1)	(1.7)
2007	190 2	243.3	53.1	(49.0)	4 1
2008	193 1	246.0	52.8	(49.2)	3 6
2009	199.8	255.4	55.6	(49 5)	6 0
2010	202 8	258.1	55.2	(49 9)	5 3
2011	205.9	262.5	56.6	(50.8)	5.8
2012	209.9	268.1	58 3	(51 8)	6 5
2013	214 5	274.4	59.9	(52.8)	7.1
2014	219 0	279 2	60.2	(53.7)	6.4
2015	221.9	278.5	56.6	(52.7)	4.0
2016	227.4	286 2	58 8	(54.6)	4 2
2017	233.9	297 1	63 1	(57.0)	6 2
2018	239.9	307.7	67.8	(59.3)	8.5
2019	245 3	316.0	70.7	(61.3)	9.4
2020	251.1	324 8	73.7	(63.2)	10.5
2021	257.0	334.6	77.7	(65.6)	12.1
2022	262.8	342.8	80 0	(67 3)	12.7
2023	268.7	352 2	83.5	(69.5)	14.0
2024	205.5	271.7	66.2	(54.2)	12.0
Cumulative Net Present Value			**$578.5**		**$42.3**

Source "Exhibit III H-2 p2 xls"

BNSF Base Case Incorporating Reroute Revenue Adjustment and ATC Revenues

Year	BNSF Revenue Requirements	BNSF Revenues (incl. Reroute Revenue Adjustment)	Adjusted Overpayments (Shortfalls)	Present Value
2004	$50.9	$42.0	($8.9)	($8.8)
2005	208.8	175 3	(33 5)	(31.0)
2006	213 3	185.1	(28 2)	(23.5)
2007	217.3	194.3	(23.0)	(17.3)
2008	220.7	196.7	(24.0)	(16.3)
2009	228.2	205.9	(22.3)	(13.7)
2010	231.7	208.2	(23.5)	(13 0)
2011	235.2	211.7	(23.5)	(11.7)
2012	239.8	216.4	(23.4)	(10.5)
2013	245.2	221.6	(23 7)	(9.6)
2014	250.5	225 5	(25 1)	(9.2)
2015	254.0	225.9	(28.2)	(9 3)
2016	260.4	231.6	(28 8)	(8.6)
2017	267.9	240.1	(27 8)	(7.5)
2018	274.8	248.4	(26.4)	(8 4)
2019	281.2	254 7	(26 5)	(5 8)
2020	287.9	261 6	(26.3)	(5 2)
2021	294.8	269.0	(25 8)	(4 6)
2022	301.6	275.5	(26.2)	(4 2)
2023	308.6	282 7	(25.9)	(3.7)
2024	236.1	217 5	(18 6)	(2.5)
Cumulative Net Present Value				**($224.2)**

Source "Exhibit_III-H-1 FTI OA I C D xls"